

MAR 15 1983

In the Supreme Court of the United States  
OCTOBER TERM, 1983

ALEXANDER L STEVENS,  
CLERK

UNITED STATES OF AMERICA, PETITIONER

v.

S. A. EMPRESA DE VIACAO AEREA RIO GRANDENSE  
(VARIG AIRLINES)

UNITED STATES OF AMERICA, PETITIONER

v.

EMMA ROSA MASCHER, ET AL.

UNITED STATES OF AMERICA, PETITIONER

v.

UNITED SCOTTISH INSURANCE CO., ET AL.

ON WRIT OF CERTIORARI TO THE  
UNITED STATES COURT OF APPEALS FOR THE  
NINTH CIRCUIT

JOINT APPENDIX

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PETITIONS FOR WRITS OF CERTIORARI FILED

FEBRUARY 10, 1983

CERTIORARI GRANTED MAY 16, 1983

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### Relevant Docket Entries

CV76-187-WPG

S.A.	Empresa De Viacao Aerea Rio Grandense vs USA
Date	NR.
1/16/76	nm      Proceedings
	Fld Complt. Issd summs.
	Fld Req & ORD for serv of process by other than USM, naming Gary C. Kuist.
2/3/76	jmn      Fld pltf Varig Airlines, note of chg of address of ensl.
	jmn      Fld pltf's Varig Airlings note of tkg depos of Rudolph Kapustin on 2/11/76 at 9:30AM.
2-9-76	mn      Fld ORD (R for RJK) (WPG) dtd 2-4-76 transng acrn to the calendar of Judge William P. Gray for all fur procdngs. Attnys notified.
3-8-76	jmr      Fld deft's ANSWER to complaint.
3-11-76	jmr      LODGED deft's proposed ord of transfer of action.
3-19-76	1w      Fld ORD(WPG) transferring action to USDC Western District of Washington. Mld cpys to prties & notfd prties. cc to clk civil. (ENT 3/19/76)
3-25-76	mn      Mld to USDC, W/D of Washington, cc Ord of Transf, cc docket and all original docs except Ord of Transf which is retained. Attny notified.
4-2-76	mn      Rec'd from USDC, W/D of Washington, copy of transmittal letter. Given case no. C76-232M.
4-23-78	nm      Rec'd from USDC, W/D of Washington, their file on Case #C76-232M. Fld each of the following documents.
Mar.31	7      Filed Varig's notice of depositions of Prater Hogue, Hall Piper, The BOEING officer charged with the duty of obtaining a Type Certificate for BOEING 707 aircraft, The BOEING officer charged with duty of designing and obtaining certification of lavatories of BOEING 707 aircraft.

- Apr.13 Filed Joinder of United States in Boeing's motion for appointment of Master and Motion of United States to vacate notice of deposition
- Apr.16 Ent. order continuing on stipulation Deft. Boeing's motion to appoint Special Master to 4/30/76. Deft. Boeing & Weber's motion to limit terminate or limit deposition of Rudolph Kapustin denied. Order to be signed.
- Apr.30 Ent. Order, granting Defendant's Boeing's motion for appointment of Special Master. Order to be signed.
- May 5 Filed Affidavit of Mark A. Dombroff in response to: (1) Varig's opposition to Boeing's motion for appointment of a special master; and (2) Varig's motion to apply the provisions of the manual for complex and multi-district litigation to these cases and for an order setting a first principal pretrial conference, a schedule for the first waiver of discovery and establishing a document depository and statement of reasons in support.
- May 27 See C76-169M for filing of deposition of Rudolf Kapustin
- Jul 6      10 Filed letter approved by Court for service of Special Master at amount of \$272.60 to May 31, 1976.
- 11 Filed letter approved by Court for service of Special Master at amount of \$942.50 for June 1, 1976 to June 30, 1976.
- Jul 22      11a Govt. motion to dismiss, notice of hearing Aug. 13, affidavit of Mark Dombroff and memorandum filed.  
              11b  
              11c
- Jul 27      12 Filed Stipulation rescheduling government's motion to dismiss for 9/24/76 from 8/13/76 and Varig's opposition papers to be filed no later than 9/20/76, at 4:30 P.M. Counsel notified.  
              12a Filed Renotice of Motion of U.S. of A. to 11/5/76

- Aug. 2 Filed Responses to Varig's modified Interrogs by Weber Aircraft Corp. First Set, see C76-169M for documents
- Aug. 2 Filed Varig's interrogs to deft. Boeing (Second Set) and answers thereto
- Aug. 3 Filed Boeing's responses to Varig's fourth set of request for documents -see C 76-169 for documents
- Sep. 10 13 Filed Motion of Weber Aircraft to Compel Varig Airlines to Produce Documents, and to Strike Objections; Affidavit of Joseph E. Gregorich and Memorandum of Points and Authorities in Support Thereof
- 14 Filed Motion of Weber Aircraft to Compel Varig Airlines to Respond to Interrogatories, and to Strike Objections (Second Set); Affidavit of Joseph E. Gregorich and Memorandum of Points and Authorities in Support Thereof
- 15 Filed Motion of Weber Aircraft to Compel Varig Aircraft to Compel Varig Airlines to Respond to Interrogatories, and to Strike Objections
- Sep 10 (First Set) Affidavit of Joseph E. Gregorich and Memorandum of Points and Authorities in Support Thereof.
- Sep 20 Filed Varig's Memorandum of Points and Authorities in Opposition to Government's Motion to Dismiss
- Sep 23 Ent. order continuing def's motion to dismiss to 9:30 a.m. 10/8/76 Mr. Dombroff to notify counsel and Clerk has notified Mr. Smith.
- Oct 4 Filed United States' Memorandum in Reply to Points and Authorities Filed by Varig in Opposition to Government's Motion to Dismiss
- Oct 4 Filed Varig's Rebuttal to United States Memorandum in Reply to Points and Authorities filed by Varig in Opposition to Government's Motion to Dismiss
- Oct 8 Def.'s motion to dismiss continued to 10/15/76
- Oct 15 Motion to dismiss continued to 10/19/76
- Oct 19 Def.'s motion to dismiss under advisement.

- Oct 21 Filed Order (entered 10/22) denying Plaintiff's motion for a continuance of defendant's Motion for Summary Judgment. Copy to counsel.
- Dec. 8 Filed and entered Order Denying Defendant's Motion to Dismiss. Copy to counsel.
- Dec. 27 Filed Varig's Memorandum of Points and Authorities in Opposition to the United States' Motion for a Protective Order,
- 1977
- Jan. 6 Filed United States of America's Memorandum in Support of Motion to Vacate and to Establish a Consolidated Discovery Schedule
- Jan. 14 Filed United States of America's Memorandum in reply to Varig's Opposition to the United States Motion for Protective Order
- Jan. 31 Filed Varig's Reply Memorandum in Opposition to the Government's Motion for a Protective Order
- Feb. 22 Filed Varig's Motion to Vacate Order of Reference and to Retransfer to the Central District of California  
Filed Varig's Memorandum of Points and Authorities in Support of its Motion to Vacate Order of Reference and to Retransfer Case to Central District of California  
Filed Affidavit of Phillip D. Bostwick and Appendix in Support of Varig's Motion to Retransfer  
Filed Notice of Motion to Vacate Order of Reference and to Retransfer to the Central District of California for 3/4/77
- Mar. 9 Filed United States of America's Affidavit in opposition to Varig's Motion to Vacate Order of Reference and to Retransfer case to the Central District of California  
Filed Affadavit of Jonathan Howe, Regional Counsel, Northwest Region, Federal Aviation Administration
- Mar. 18 Filed Reply Memorandum and appendix in Support of Varig's Motion to Vacate Order of reference and to retransfer

Plaintiff's motions to vacate order of reference  
and retransfer under advisement.

1978

Jan. 20

- Filed Order retransferring case to the Central District of California and vacating orders of 5/5/76 and 5/19/76 referring case to George Bovingdon as Special Master. Copy to counsel.
- 1/23/78 nm Fld cc Ord of Transf, cc docket, & ltr of transf. Attys notified. Md re-opening 33.
  - 3/27/78 sam Fld deft Weber resp to pltfs req for prod of documents 2nd set.
  - 8/11/78 rlb 34. Fld Varig's ntc of mot, rtnble 9/25/78 at 10am, for consolidation.  
35. Fld Varig's memo of P/As In suppt of mot to consolidate.
  - 8/24/78 aj 36. Fld USA respnse to Varig's mtn for consolidation.
  - 9-8-78 rc 37. Fld pltf's note of mtn & mtn for order compelling discovery; retnbl 9-25-78  
38. Fld pltf's Memo of P&A in support of mtn to compel discovery.
  - 9/11/78 rlb 39. Fld stip & ORD (IH for WPG) re dscvry.
  - 9-19-78 kc 40. Fld pltf Variz Airlines' memo & affid in oppstn to United States' motn for consolidation.
  - 9-20-78 kc 41. Fld pltf Varig Airlines' note of depos of Donald Swett on 4-17-78, John V\_\_\_\_ on 4-19-78, Robert Rotberg on 4-20-78, Victor Bassotti on 4-24-78, J. Turr on 4-26-78, & Pat Vaughn on 4-27-78.  
42. Fld pltf Varig Airlines' certif of ensl in compliance w/Loc Rule 3(L).
  - 10/12/78 lb 43. Fld pltf Varig's memo of P&A in supp of mot to strike Kidde's 4th affirmativ defense.  
44. Fld pltf Varig's note of mot & mot to strike 4th affirmativ defense retnbl 10/30/78 10AM.  
45. Fld pltf Varig's note of mot & mot to strike deft USA's 1st & 2nd defenses retnbl 10/30/78 10AM.  
46. Fld pltf Varig's memo of P&A in supp of mot to strike USA's defenses.

47. Fld pltf Varig's note of mot & mot to strike kidde's 4th defense or in the for an ord revising the s/j ord of 1/14/77 w/ affid in supp.
- 10-23-78 kc 48. Fld pltf VARIG Airlines' note of motn & motn for cont of Kidde's motn for & affid in support retnble 10-30-78.  
49. Fld pltf VARIG Airlines' affid of Phillip D. Bostwick in support of motn to strike deft Kidde's 4th affirmative defense.  
50. Fld plt VARIG Airlines' memo of P/A's in support of VARIG's motn for cont Kidde's motn for S/J.
- 10-23-78 kc 51 Fld deft's memo of P/A's in oppstn to Varig's Motn to strike affirmative def & entr-motn of U.S. to dism.
- 10-25-78 kc 52. Fld deft USA's supple brief & response to pltf passengers' brief in support Varig's motn to strike affirmative defenses of the U.S.  
53. Fld deft Weber Aircraft's memo of P/A's in response to Varig's motn for contc Kidde's motn for S/J.
- 10-26-78 kc 54. Fld deft USA's motn in oppstn to Varig's ex parte reqst to cont retnble 10-30-78.
- 11/14/78 lb 55. Fld deft's note of entrmot & cntrmot to dism retnbl 12/11/78 2 PM.
- 12/8/78 pg 56. Fld deft's aff of Cecile Hatfield.
- 12/13/78 pg 57. Fld defts reply to Varig's response to US mot to dism.
- 12/15/78 pg 58. MIN ORD: Hrg on OTC to set aside S/J: Crt ORD discharged—OSC & reaffirm the S/J. deft Boeing shall submt memo re cert. for interlocutory apeal by 1/14/78. Re Mot to dism by deft GNRTD pltfs mot to strk gvmnts affirmative defense is DEN.
- 6/15/79 jmw 59. Fld pltf Varig's note of tkg DEPOs of: Chief of Aircraft Engineering Div FAA West Region, 6-25-79/9:30 am; FAA employee responsible for review'g docs re Boeing 707, 6-26-79/9:30 am; unknown indiv (see

- note), 6-28-79 at 9:30 am; unkn indiv(see note), 7-9-79/9:30 am; unkn indiv (see notc) 7-10-79/9:30am; unkn indiv(see notc) 7-12-79/9:30am; unkn indiv(see notc) 7-13-79/9:30am.
- 6-5-79 jmw 60. Fld pltf Varig's renote of motn for ORD cmpelg disc fr U.S.A. (orig fld w/Crt 9-8-78) for retnbl 6-11-79/10am.  
 61. Fld pltf Varig's A/Note of DEPO of Custod Boeing crdrs, 6-22-79/9:30am
- 7/6/79 jmw 62. Fld pltf's cert of ensl in empliment w/loc rul 3(L).
- 7-15-79 gll 63. Fld deft, Weber Aircraft Corp, reply memo fr motn fr S/J; affid of Joseph E. Gregorich.
- 7-18-79 jmw 64. MIN ORD: PROCDGS: ORD tha deft Weber's mot S/J stand sbmt'd; ORD GRNTG pltf Varig's mot to compel as to req 17 & 19.
- 7-26-79 gll LODGED prop ord re pltf's motn to compel discov.
- 7-27-79 gll 65. Fld ORD (WPG) granting Varig's motn to compel prod of docs; USA to prod docs by 7-18-79; USA to provide list of names & addresses re note of depos: thereafter Varig sh be prmted to depose 7 prsns.
- 8-12-79 gll 66. Fld stip & ORD (WPG) cont motn fr S/J to 6-18-79, 2pm; fur stip that motn of Varig to compel discov agnst USA cont to 6-18-79 2 p.m.
- 8-20-79 gll 67. Fld pltfs' subst of attys & ORD (WPG) subst Joseph T. Cook of Speiser, Krause & Madole.
- 8-12-79 lf 68. Fld plt's note of tkg depos of Richard Nelson on 8-21-79 & Rocco Lippis on 8-28-79.
- 8-10-79 lf 69. Fld plt's note of motn & motn for ord settng discov cut-off date, final PTC & trial retnbl 8-27-79, 2PM  
 70. Fld pltf's memo of P&A in supp of motn for ord setting discov cut-off date, final PTC & trial
71. Fld pltf's note of motn & motn for sanctns for gov'ts failure to comply w/dis ord

72. Fld plt's memo of P&A in supp of motn for  
sanctns for gov'ts failure to comp w/discov  
ord
73. Fld pltf's memo of P&A in supp of motn for  
lv to tk depos of Boeing Employees
74. Fld pltf's note of motn & motn for lv to tkg  
depos of Boeing Employees
- 8-22-79 lf 75. Fld pltf suppl memo on the 9th circuit's sas  
opinion
76. Fld pltf's aff of Phillip D. Bostwick in oppos  
to Boeing's motn to quash or modify Varig's  
subp & in supp of Varig's motn to lv to tk  
depos of Boeing
- 8-27-79 lf 77. MIN ORD: motn for S/J fr Kidde is denied;  
depos of USA to be tkn; motn for sanctns  
tnk off cal
- 9-14-79 lf 78. Fld deft's gov't memo in oppos to Varig's  
motn for crt-approv'd discov sch & discov  
cut-off date
- 9-14-79 lf 79. Fld pltf's oppos to discov sch & discov  
cut-off
- 11-6-79 lf 80. Fld pltf's renote of depos of Richard Nelson  
on 11-13-79
- 11-13-79 lf 81. Fld pltf's renote of depos  
LODGED pltf's prop ord re depos
- 11-23-79 lf 82. Fld ORD re depositns; depos of Richard  
Nelson & Rocco Lippis shall not go for ensl  
for Mascher shall mk himself availbl in De-  
cember for 7 depos: govt mk availbl list of 7  
wits; depos complete by 12-31-79
- 11-29-79 lf 83. Fld plt's Varig's amd renote of depos of  
Richard Nelson on 12-4-79, Rocco Lippis on  
12-10-79, Jack Bulmer on 12-11-79, Harold  
Tanke on 12-12-79 & William Van Brockdorff  
on 12-13-79. Issd 3
- 12/17/79 lp Fld DEPOSITION of John F. Turner takn on  
12/17/79, Vol. I.
- 12/17/79 lp Fld DEPOSITION of Patrick Vaughn takn on  
4/27/79, Vol. I.
- 2-5-80 lf 84 Fld pltfs renote of depos of Richard Nelson  
on 2-8-80

- 2-8-80 lf 85 Fld pltf's amd renote of depos of Richard Nelson on 2-20-80
- 5-15-80 sb Fld DEPOSITION of Harold Frederick Tanke tkn on 12-12-79  
 Fld DEPOSITION of Jack K. Bulmer tkn on 12-11-79, Vol. I  
 Fld DEPOSITION of Jack K. Bulmer tkn on 12-12-79, Vol. II
- 5-20-80 srl LODGED pltf's prop ord
- 5-20-80 srl 86. Fld pltf's renot of motn for sanctns for failure of the US to comply w/ert's discov ord etc RTNBLE 7-7-80 10AM
- 5-23-80 lf 87 Fld pltf's renote of depos of Wes Slifer on 7-9-80; an employee of the boeing on 7-10-80
- 6-26-80 kt 88 Fld deft's memo in oppo to pltf Varig's motn for sanctns & for lv to file a 1st amended complt
- 7-2-80 kt 89. Fld pltf's renot of depo of Wes Slifer on 7-9-80 & Raleigh Curtis on 7-10-80  
 90. Fld pltf's reply memo in supprt of its mot & for lv to file a 1st A/C
- 7-7-80 lf 91 MIN ORD: crt ORDS depos of Mr. Curtis to be tkn, pltfs mtn to amd GRANTD; govt mtn to dism rtnbl 11-24-80, 10AM; govt may file suppl papers, pltf respons due 11-7-80, govt reply due 11-17-80
- 7-10-80 kt 92. Fld pltf's FIRST AMENDED COMPLAINT
- lf LODGED prop ord
- 12-11-80 lf 93 Fld ORD that Varig's mtn for sanctns is denied; Varig's mtn for lv to file 1st A/C grantd; mtn for lv to tk the depos of Mr. Raleigh Curtis GRANTD: US mtn for S/J due 9-30-80; oppos due 11-7-80 & reply brief due 11-17-80; rtnbl 11-24-80 2PM
- 11-11-80 sb Fld DEPOSITION of Rocco Louis Lippis tkn on 12-11-79  
 Fld DEPOSITION of Rocco Louis Lippis tkn on 12-10-79

- 11-20-80 lf 94 Fld pltfs note of tkg depos of Wes Slifer on 9-3-80; Raleigh Curtis on 9-4-80, The FAA Official on 9-15-80 & Craig Beard on 9-16-80
- 11-20-80 lf 95 Fld defts USA ANSWER TO FIRST AMENDED COMPLAINT
- 12/1/80 rlb 96. Fld Varig's amnd ntc of tkng depos of various deponents on various dts.
- 12-12-80 rlb 97. Fld stip & ORD that US file mot for S/J on or bf 10/31/80; opp on or bf 11/30/80 reply on or bf 12/8/80; Hrg on mot 12/15/80, 2 pm.
- 12-11-80 md 98. Fld pltf Varig's amded note of tkng depos of M. Craig Beard, FAA on 10-21-80 and Wes Slifer, FAA aero. engr on 10-22-80
- 12-2-80 md 99. Fld deft note of mot, retnbl 12-15-80, 2:00 pm.  
 100. Fld deft material facts as to which there is no gen iss  
 LODGED deft prop findings of fact & concls of law  
 LODGED deft prop ord for entry of S/J in favor of deft & against pltfs Varig & Mascher, et al.
- 12-29-80 md 101. Fld pltf Varig Airlines note of flg depos of Rocco Lippis, tkn 12-10 & 11-79; Jack Bulmer, tkn 12-11 & 12-79; & Harold Tanke, tkn 12-12-79
- 12-6-80 md Fld DEPOSITION of Rolland C. Curtiss tkn 10-10-80.
- 12-8-80 md 102. Fld pltfs' Stip & ORD entg deft United States' mot for S/J & pltfs' mot for lve to amd emplt to 1-26-81, 2:00 pm. Resp by Varig & Mascher to U.S. mot for S/J due on or bef 12-17-80 & reply by deft due on or bef 1-7-81  
 LODGED pltfs' prop ord  
 103. Fld Varig's memo of P&A in oppo to the deft US's mot for S/J.  
 104. Fld Varig's appendix in oppo to US's mot for S/J. (exhs)  
 105. Fld Varig's stmt of gen iss of material fact.

- 12-14-80 md 106. Fld pltf note of flg depo of Rolland C. Curtis on 11-26-80.
- 1-6-81 md 107. Fld deft's reply memo to pltf Varig's memo in oppo to U.S. mot for S/J.
- 1-20-81 md 108. Fld pltf Varig Airlines mot to strike affs of Cecile Hatfield & Melvin Craig Beard.  
 109. Fld pltf Varig's memo of P&A in sppt of mot to strike affs  
 110. Fld pltf Varig's note of mot to strike affs, rtnbl 2-17-81, 10 am  
 111. Fld pltf Varig's memo of P&A in rebuttal to US mot for S/J.
- 1-6-81 md Fld DEPOSITION of Weston B. Slifer tkn 10-22-80.  
 Fld DEPOSITION of Weston B. Slifer tkn 10-23-80.
- 1-26-81 md 112. MIN ORD: Crt hrs oral arg & grts deft's mot for S/J. Pltf may fi objs to s\_\_\_\_ prop fndgs at which ti crt will fi jdgmt & fndgs.
- 2-4-81 md 113. Fld pltf Varig Airlines note of flg depo of Melvin Craig Brd, tkn 10-21-80 & Weston B. Slifer, tkn 10-22-23, 1980
- 3-6-81 md 114. Fld Fndgs of Fact & Concls of Law (WPG) tht S/J will be grtd in fav of deft United States. (ENT 3-9-81) Mld cpys & notes to prtys.  
 115. Fld ORD (WPG) tht jdgmt be ent in fav of deft United States & agnst pltfs Varig and Mascher, et al. (78-0914-WPG) (ENT 3-9-81) Mld cpys & notes to prtys.
- 3/29/81 fb 116. Fld pltf NOTC OF APPEAL to the 9th Cir. C/A fr ORD ent on 3/9/81; \$70.00 Clk's fee & docket fee paid.
- 5-6-81 sb 117. Fld pltf's designation Rpt trans
- 7/24/81 am Fld rptr's transcrs. of proceedings held on 12/15/78, 6/18/79, 8/27/79, 7/7/80, 1/26/81.

## EMMA ROSA MASCHER, ET. AL

- 1/9/78 sam 1. Fld complt. Issd summs.
- 1/13/78 rlb 2. Fld app & ORD that Charles F. Krause be allowed to appear as non resident atty & naming Ted Orliss as local cnsl.  
 3. Fld app & ORD that Donald W. Madole be allowed to appear as non resident atty & naming Ted Orliss as local cnsl.  
 4. Fld app & ORD that Robert R. Smiley III be allowed to appear as non resident atty & naming Ted Orliss as local cnsl.
- 4/18/78 rlb 5. Fld summs rtnd srvd 3/17/78.
- 4/28/78 ct 6. Fld ORD (R) (WPG) dtd 4/28/78, transfg the actn to the cal of Judge Gray for all fur predgs. Attys notified.
- 5/22/78 rlb 7. Fld deft's ANSWER to COMPLAINT.
- 5/24/78 ct 8. Fld USA's Nte of Mtn & Mtn rtble 9/25/78, 10am for consolidtn.
- 5-15-78 dg 9. Fld pltfs stmt in supp of mot by USA to consolidate
- 6-21-78 dg 10. Fld pltfs notc of tk depos of various depo-nents, various dates
- 9/25/78 rlb 11. MIN ORD: ORD mot pltf to compl dsevry go off cal; Hrg mot plf for lv to amnd & consol & Ord Grting mot to amnd cmp & mot to consolidate as to CV75-2325 & 6-187 a to hrg of legal mots only
- 10-20-78 lf 12. Fld pltf's memo of P&A  
 13. Fld pltf's memo of P&A  
 14. Fld pltf aff of Robert R. Smiley III  
 15. Fld pltf stmt of the case
- 10/23/78 rlb 16. Fld US's memo of P/As in opp to Varig's mot to strk affrm defenses & counter mot to dsm.
- 10/25/78 rlb 17. Fld US' suppl brief & rsp to pltf Passen-gers' brief in suppt of Varig's mot to strk affrm defense of US.
- 10/26/78 rlb 18. Fld rsp of pltfs Mascher et al's to opp of deft US to Varig mot to dsm & cntr mot of US to dsm.

19. USA mot In opp to Varig's ex parte rqst to cont.
- 1/14/78 rlb 20. Fld USA'sntc of countermot & countermot to dsm.
- 1/20/78 rlb 21. Fld plfs' suppl brief in opp to Mot by deft for S/J.
- 2/8/78 rlb 22. Fld affd Hatfield & memo in opp to Varig's mot for ord compelling dscvry.
- 2/15/78 rlb 23. MI N ORD: OSC to set aside S/J: ORD OSC dischrged & S/J reaffirmed; deft Boeing to sub memo re cert for interloc appeal by 1/14/79: defts mot to dsm s Denied & plfs mot to strk is Denied, flng Of S/J after dscvry will be allowed.
- 7/20/79 rlb 24. Fld sub & ORD sub Joseph T. Cook in place & stead of Theodore Orliss.
- 7/10/79 rlb 25. Fld plfs' cross ntc of tkng depos of Richard Nelson on 8/21/79 & Rocco Lippis on 8/28/79.
- 9-14-79 yd 26. Fld pltfs opp to discov schedule & discov cut-off
- 7-14-80 dg Fld DEPOSITION of Richard W. Nelson on 8-22-79
- \* Fld Contd DEPOSITION of Richard W. Nelson of 8-21-79
- 7-19-80 sb Fld DEPOSITION of Richard W. Nelson tkn on 2-26-80
- 8-2-80 kt Fld pltfs' memo of law in sprrt of mot by pltf Varig to file an A/C & for sanctions against deft U.S.  
Fld pltfs' stmt in sprrt of mot by pltf Varig for sanctions for 1v to file an A/C & for 1v for discovery from the Boeing Co.  
Fld pltfs' aff of Joseph T. Cook & attached exhs
- 8/21/80 rz Fld pltfs Mascher et al's note of depos of Wes Slifer on 9/3/80; of Raleigh Curtis on 9/4/80; FAA Official in charge of or responsibl fr issuing Airworthiness Directives on the 707 aircraft & othrs during the year preceding the Varig crash or his successor on 9/15/80; of M. Craig Beard on 9/16/80

9-8-80      sb      Fld DEPOSITION of Richard W. Nelson tkn on 2-20-80  
                 Fld DEPOSITION of Richard W. Nelson tkn on 12-4-79  
                 Fld DEPOSITION of Richard W. Nelson tkn on 12-5-79

10/21/80     rz      Fld AUSA, U.S. memo in opp to pltfs Mascher, et al mot to amd complt

10-31-80     kt      Fld pltfs' ntc of mot, rtnbl 11-24-80, 10am  
                 Fld pltfs' mot to A/C  
                 LODGED pltfs prop A/C

11/6/80      rlb      Fld response of plfs' to memo of US in opp to mot to amnd cmplt.

11/20/80     rlb      Fld stip & ORD entg mot to amnd complt to 12/15/80, 2pm.

12/3/80      rlb      Fld stip for cont of USA's mot for S/J & for plf Maschers' mot for lv to amnd & ORD thereon entg mots to 1/26/81, 2pm.

12/17/80     rlb      Fld plfs' memo of law.

12/19/80     rlb      affd Cook.

1/7/81       rlb      39. Fld US' ntc of mot, rtnble 1/26/81, 2pm to strike.  
                 40. Fld US' memo in suppt its' mot to strike.  
                 41. Fld US' reply memo to plfs' opp to US' mot for S/J.  
                 42. Fld US's mot to strike portions of affd of Cook III.

1/14/81      rlb      Fld DEPOSITIONS of Melvin Graig Beard, tkn 10/21/80.

1/22/81      rlb      Fld DEPOSITION of Weston B. Slifer, tkn 10/22/80  
                 Fld DEPOSITION of Weston B. Slifer, tkn 10/23/80

2/4/81       1p      43. Fld pltf note of filing the takng depositn of Melvin Craig Beard takng on 10/21/80.

2-6-81       md      44. Fld Findings of Fact & concls of law (WPG) tht S/J will be ent in fav of deft United States of America. (ENT 3-9-81) Mld cyps & notes to prtyps.  
                 45. Fld ORD (WPG) for entry of S/J in fav of deft, United States of America and agnst

pltfs Varig and Mascher, et al. (ENT 3-9-81)  
Mid cyps & notes to prtys.

- 4/23/81 1p 46. MIN ORD: (Nunc Pro Tunc—1/26/81).  
ORD that pltfs' mot to amend the complnt is  
Granted.
- 5-8-81 1w 47. Fld pltfs' NOTC OF APPEAL to 9th Cir  
frm Ord ent 3-9-81

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and

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*Attorneys for Plaintiff*  
VARIG Airlines

*UNITED STATES DISTRICT COURT*  
*CENTRAL DISTRICT OF CALIFORNIA*

*Civil Action No.*  
*CV 76-0187-WPG*

S.A. EMPRESA DE VIACAO AEREA RIO GRANDENSE  
(VARIG AIRLINES), PLAINTIFF,

v.

THE UNITED STATES OF AMERICA, DEFENDANT

FIRST AMENDED COMPLAINT  
FOR MONEY DAMAGES

COUNT I

1. Plaintiff, S.A. EMPRESA DE VIACAO AEREA RIO GRANDENS (VARIG AIRLINES) (hereinafter "VARIG") is a corporation incorporated under the laws of the Republic of the United States of Brazil, having its principal place of business in Rio de Janeiro, Brazil. As Brazil's international "flag" airline, VARIG flies its passenger-carrying aircraft into and out of the International Airport at Los Angeles, California, where it maintains offices and does business.

2. Plaintiff's claim against defendant UNITED STATES OF AMERICA (hereinafter "UNITED STATES") arises

under the Federal Tort Claims Act, 28 U.S.C. §§ 1346 (b), 2671 *et seq.*, as hereinafter more fully appears.

3. At all times mentioned herein the United States Federal Aviation Administration or its predecessor the Civil Aeronautics Authority (hereinafter collectively referred to as the "FAA") was an agency of defendant UNITED STATES charged by law with the duty of promoting safety of flight of civil aircraft in air commerce by prescribing such minimum standards governing the design and performance of aircraft as may be required in the interests of safety. In furtherance of that duty the FAA was at all times mentioned herein empowered by law to issue type certificates for passenger-carrying aircraft such as the BOEING Model 707 jet transport (hereinafter "BOEING Model 707 type aircraft") and upon application for such a certificate by aircraft manufacturers such as THE BOEING COMPANY (hereinafter "BOEING") the FAA was charged by law with the duty of reviewing the applicant's designs, drawings, tests, analyses, and aircraft and its component parts for the purpose of ascertaining whether the applicant's aircraft complied with the applicable Civil Air Regulations and/or Federal Aviation Regulations (hereinafter collectively referred to as "FARs") and other standards governing the design and performance of aircraft prescribed by the FAA; and with the further duty of making, or requiring the applicant to make, such tests during manufacture and upon completion of the aircraft as the FAA deemed reasonably necessary in the interests of safety, including flight tests and tests of any part of such aircraft.

4. At all times herein mentioned the FAA acted by and through its officers, agents and employees, who were at all times mentioned herein acting under color of their office, within the scope and course of their employment, and on behalf of a federal agency in an official capacity as employees of defendant UNITED STATES.

5. Prior to July 11, 1973, BOEING and WALTER KIDDE & COMPANY, INC. (hereinafter "KIDDE") designed, tested, manufactured and sold a BOEING 707-320-C passenger-carrying transport jet aircraft, serial number 19841; and prior to said date, plaintiff VARIG pur-

chased said aircraft from Seaboard World Airlines, Inc. and operated it as Registration No. PP-VJZ (hereinafter said aircraft is referred to as "PP-VJZ").

6. Prior to July 11, 1973, BOEING made application to the FAA's Western Region in Los Angeles, California, for a type certificate for the BOEING Model 707 type aircraft, which certificate was issued by the FAA's Western Region prior to said date.

7. Prior to July 11, 1973, in California and elsewhere in the United States, the defendant UNITED STATES, through its agency the FAA, negligently and carelessly issued a type certificate for the BOEING Model 707 type aircraft, which aircraft the FAA knew or should have known did not comply with the FARs and other minimum standards governing the design and performance of passenger-carrying aircraft, and which aircraft the FAA knew or should have known had defects and dangers in its design and manufacture; negligently and carelessly failed to review and inspect BOEING's and KIDDE's designs, drawings, tests, analyses, and aircraft and its components for the purpose of ascertaining whether the Model 707 type aircraft complied with the applicable FARs and aforementioned minimum standards governing the design and performance of passenger-carrying aircraft; negligently and carelessly failed to make, or failed to require BOEING and KIDDE to make, such tests during the manufacture and upon completion of the BOEING Model 707 type aircraft, including PP-VJZ, as were necessary in the interests of safety; negligently and carelessly failed to require BOEING and KIDDE to modify or alter the design and manufacture of the BOEING Model 707 type aircraft, including PP-VJZ, prior to July 11, 1973, when it knew or reasonably should have known that said aircraft was defective, dangerous and not in compliance with the FARs and aforementioned minimum standards, governing the design and performance of passenger-carrying aircraft; and negligently and carelessly failed to notify and/or warn operators and users of BOEING Model 707 type aircraft, including VARIG, prior to July 11, 1973, through the issuance of

Airworthiness Directives ("hereinafter "ADs"), or otherwise of the defects and dangers in said aircraft, including PP-VJZ, of which defects and dangers the FAA knew or should have known.

8. As a proximate result of the negligence of the defendant UNITED STATES as alleged, on July 11, 1973, PP-VJZ crash-landed near Paris, France following an in-flight fire in the aircraft which became uncontrollable.

9. As a proximate result of this negligence PP-VJZ was totally destroyed, all to the plaintiff's damage in the sum of SIX MILLION DOLLARS (\$6,000,000.00).

WHEREOF, VARIG prays judgment as hereinafter set forth.

#### COUNT II

10. VARIG repeats and realleges each and every allegation contained in paragraphs 1, 2, 4, 5 and 6 of Count I of the First Amended Complaint, as if set forth in full herein.

11. At all times herein mentioned the UNITED STATES undertook to certify civil aircraft in air commerce, including the BOEING Model 707 type aircraft, as airworthy and in compliance with the applicable FARs and such minimum standards governing the design, manufacture and performance of aircraft as were required in the interests of safety. In furtherance of that undertaking the UNITED STATES, through its agency the FAA and its employees and designated representatives, issued Type Certificates and Certificates of Airworthiness to aircraft designers and manufacturers including BOEING, for civil aircraft in air commerce, including the BOEING Model 707 type aircraft and PP-VJZ, upon application for such certificates by manufacturers, including BOEING. Following such application the FAA, its employees and designated representatives, undertook to review and inspect the applicant's designs, drawings, tests, analyses and aircraft, including its component parts, for compliance with applicable FARs and the aforesaid minimum standards. In addition, the FAA, its employees and designated representatives undertook to require the applicants, including BOEING, to make such tests, including flight tests, of passenger-carrying aircraft,

including the BOEING 707 type aircraft, as were required in the interests of safety and to show compliance with the applicable FARs and the aforesaid minimum standards. The FAA further undertook to review the in-service operating and safety experience of aircraft which had been issued the aforesaid certificates, including the BOEING Model 707 type aircraft, after their delivery to operators, including VARIG, for the purpose of discovering said dangers and defects; to determine the continuing safety and airworthiness of such aircraft; and to warn all operators of such aircraft of all such dangers and defects and of the means or methods of correcting or minimizing them. In furtherance of that undertaking the FAA issued ADs and other communications to operators of such aircraft during the operating life of the aircraft.

12. Prior to July 11, 1973, operators and users of BOEING Model 707 type aircraft, including VARIG, reasonably relied on the FAA's various undertakings described above, including but not limited to the issuance of type certificates, certificates of airworthiness and ADs for the BOEING Model 707 type aircraft, including PP-VJZ, and the FAA was aware of such reliance.

13. Prior to July 11, 1973, in California and elsewhere in the UNITED STATES, the defendant UNITED STATES, through its agency the FAA, negligently and carelessly issued a type certificate for the BOEING Model 707 type aircraft, which aircraft the FAA knew or should have known did not comply with the applicable FARs and other minimum standards governing the design and performance of passenger-carrying aircraft, and which aircraft the FAA knew or should have known had defects and dangers in its design and manufacture; negligently and carelessly failed to review and inspect BOEING's and KIDDE's designs, drawings, tests, analyses, and aircraft and its components for the purpose of ascertaining whether the BOEING Model 707 type aircraft complied with the applicable FARs and the aforementioned minimum standards governing the design and performance of passenger-carrying aircraft; negligently and carelessly failed to make, or failed to require BOEING and KIDDE to make, such tests during the man-

ufacture and upon completion of the BOEING Model 707 type aircraft, including PP-VJZ, as were necessary in the interests of safety; negligently and carelessly failed to require BOEING and KIDDE to modify or alter the design and manufacture of the BOEING Model 707 type aircraft, including PP-VJZ, prior to July 11, 1973, when it knew or reasonably should have known that said aircraft was defective, dangerous and not in compliance with the applicable FARs and aforementioned minimum standards, governing the design and performance of passenger-carrying aircraft; and negligently and carelessly failed to notify and/or warn operators and users of BOEING Model 707 type aircraft, including VARIG, prior to July 11, 1973, through the issuance of ADs or otherwise of the defects and dangers in said aircraft, including PP-VJZ, of which defects and dangers the FAA knew or should have known.

14. As a proximate result of the negligence of the defendant UNITED STATES as alleged, the risk of harm to users and operators of BOEING Model 707 type aircraft, including VARIG, was increased.

15. As a proximate result of the negligence of the defendant UNITED STATES as alleged, on July 11, 1973, PP-VJZ crash-landed near Paris, France, following an in-flight fire in the aircraft which became uncontrollable.

16. As a proximate result of defendant UNITED STATES' negligence as alleged, PP-VJZ was totally destroyed, all to plaintiff's damage in the sum of SIX MILLION DOLLARS (\$6,000,000.00).

WHEREOF, VARIG demands judgment against the UNITED STATES in the sum of SIX MILLION DOLLARS (\$6,000,000.00), for interest, for the costs of this action, and for all other proper relief.

Dated:

SHAW, PITTMAN, POTTS & TROWBRIDGE  
1800 M Street, N.W.  
Washington, D.C. 20036  
Telephone: (202) 331-4100

/s/

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UNITED STATES DISTRICT COURT  
CENTRAL DISTRICT OF CALIFORNIA

Civil Action No.  
CV 76-0187-WPG

S. A. EMPRESA DE VIACAO AEREA RIO GRANDENSE  
(VARIG AIRLINES), PLAINTIFF,

v.

THE UNITED STATES OF AMERICA, DEFENDANT

**ANSWER OF DEFENDANT, UNITED STATES OF  
AMERICA TO FIRST AMENDED COMPLAINT FOR  
MONEY DAMAGES**

Defendant, United States of America, by its attorneys, ANDREA SHERIDAN ORDIN, United States Attorney for the Central District of California, and CECILE HATFIELD, Trial Attorney, United States Department of Justice, Washington, D.C., in answer to the Complaint for Money Damages as filed herein states as follows:

**COUNT I**

1. The United States of America is without sufficient knowledge and information to form an opinion as to the

truth of the allegations contained in Paragraph 1 of the Complaint, but for the purposes of this Answer, they are denied.

2. The allegations contained in Paragraph 2 of the Complaint present questions of law which are respectfully referred to this Honorable Court for determination.

3. The allegations contained in Paragraph 3 of the Complaint present questions of law which are respectfully referred to this Honorable Court for determination.

4. The United States of America is without sufficient knowledge and information to form an opinion as to the truth of the allegations contained in Paragraph 4 of the Complaint, but for the purpose of this Answer, they are denied.

5. The United States of America is without sufficient knowledge and information to form an opinion as to the truth of the allegations contained in Paragraph 5 of the Complaint, but for the purpose of this Answer, they are denied.

6. The United States of America admits the allegations contained in Paragraph 6 of the Complaint.

7. The United States of America denies each and every allegation contained in Paragraph 7 of the Complaint.

8. The United States of America denies each and every allegation contained in Paragraph 8 of the Complaint.

9. The United States of America denies each and every allegation contained in Paragraph 9 of the Complaint.

## COUNT II

10. The United States of America repeats and reaffirms each and every answer to Paragraphs 1, 2, 3, 4, 5, 6, 7, 8 and 9 of Count I of the First Amended Complaint, as if set forth in full herein.

11. The United States of America denies each and every allegation contained in Paragraph 11 of the Complaint.

12. The United States of America denies each and every allegation contained in Paragraph 12 of the Complaint.

13. The United States of America denies each and every allegation contained in Paragraph 13 of the Complaint.

14. The United States of America denies each and every allegation contained in Paragraph 14 of the Complaint.

15. The United States of America denies each and every allegation contained in Paragraph 15 of the Complaint.

16. The United States of America denies each and every allegation contained in Paragraph 16 of the Complaint.

**AFFIRMATIVE DEFENSES  
FIRST DEFENSE**

17. The Complaint fails to state a cause of action.

**SECOND DEFENSE**

18. This Honorable Court lacks jurisdiction pursuant to the provisions of 28 U.S.C. Section 2680(a), (h) and (k).

**THIRD DEFENSE**

19. No negligent or wrongful act of any agent and/or employee of the United States of America acting within the scope of his employment in any way caused or contributed to the happening of the subject accident.

**FOURTH DEFENSE**

20. The injury suffered herein by the Plaintiff was due to the negligence of the Plaintiff herein acting by and through its agents and/or employees.

WHEREFORE, Defendant, United States of America, demands dismissal of the Complaint herein and for such other, further and different relief which to the Court may be just and proper.

Respectfully submitted,

**ALICE DANIEL**  
*Assistant Attorney General*  
*Civil Division*

**ANDREA SHERIDAN ORDIN**  
*United States Attorney*

**JAMES STOTTER, II**  
*Assistant United States Attorney*

**GARY W. ALLEN**  
*Assistant Director*  
*Torts Branch, Civil Division*

By: /s/ \_\_\_\_\_

**CECILE HATFIELD**

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*P.O. Box 14271*

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UNITED STATES DISTRICT COURT  
CENTRAL DISTRICT OF CALIFORNIA

Civil No. 78 0914

EMMA ROSA MASCHER, ALFRED ROSA, GUIDO ROSA,  
RAYMOND ROSA, BRUNO ROSA, CORIDO ROSA, AND ERNEST  
ROSA, INDIVIDUALLY AND AS HEIRS AND LEGATEES OF ELOI  
ROSA, DECEASED, ET AL. PLAINTIFFS,

v.

UNITED STATES OF AMERICA, DEFENDANT

## COMPLAINT FOR WRONGFUL DEATH

Plaintiffs, through their attorneys, SMILEY & LEAR, P.C., SPEISER & KRAUSE, P.C. and SPEISER, KRAUSE & MADOLE, respectfully allege as follows:

## I.

That pursuant to the Federal Tort Claims Act, 28 U.S.C. §§ 1346(b) and 2671-2680, et al., the plaintiffs bring this action for wrongful death.

## II.

That on or about July 10, 1975, administrative claims were filed, pursuant to the provisions of 28 U.S.C. §2675(a), with the Department of Transportation, Federal Aviation Administration, and other related governmental agencies. On October 18, 1977, these claims were denied. Therefore, pursuant to the provisions of 28 U.S.C. §§ 1346(b) and 2675(a), the present action is brought.

## III.

That defendant operates the Department of Transportation and the Federal Aviation Administration, with headquarters in Washington, D.C. and related subdivisions located in this district, and that the negligence described in Paragraphs XIII through XVII, inclusive below, occurred in the Western Region of the Federal Aviation Administration, in Los Angeles, California, within this judicial district, as well as in Washington, D.C.

## IV.

That this Court has jurisdiction over the parties and the subject matter based on the provisions of the Federal Tort Claims Act, 28 U.S.C. §§ 1346(b) and 2671, *et seq.*

## V.

That at all times relevant hereto, the principal business of the Boeing Company (hereinafter referred to as "Boeing") within the United States was and is the planning, design, manufacture, assembly, testing, modification, servicing, inspection and sale of various types of aircraft, including the Boeing 707 aircraft, and the component parts, equipment, systems and accessories thereof, and manuals and training devices pertaining thereto.

## VI.

That prior to July 11, 1973, Boeing planned, designed, manufactured, assembled, tested, serviced and inspected, within the United States a Boeing 707-320C aircraft, serial number 19841 (hereinafter referred to as the "subject aircraft"), including the component parts, equipment, systems and accessories thereof, and the manuals and training devices pertaining thereto, and the subject aircraft was thereafter sold and delivered to SEABOARD WORLD AIRLINES INC., (hereinafter referred to as "Seaboard") for use as a common carrier of passengers and property for hire.

## VII.

That prior to the sale of the subject aircraft to Seaboard, the aircraft, including its component parts, equipment, systems and accessories thereof, were inspected and certified as being safe and suitable for public use by the defendant, through its employees and agents, acting within the scope of their employment.

## VIII.

That prior to July 11, 1973, the subject aircraft was purchased from Seaboard by S.A. EMPRESA DE VIACAO AEREA RIO GRANDENSE, a Brazilian corporation trad-

ing as VARIG AIRLINES (hereinafter referred to as "Varig") for use as a common carrier of passengers and property for hire.

#### IX.

That on July 11, 1973, the subject aircraft was operated by Varig on a regular scheduled international flight between Rio de Janeiro, Brazil, and Orly Airport, France, carrying 117 fare-paying passengers.

#### X.

That on July 11, 1973, as the subject aircraft approached Orly Airport, France, a fire broke out in the vicinity of a lavatory in the aft section of the subject aircraft, causing various materials used in the fuselage and interior furnishings and upholstery of the aircraft to burn and emit dangerous and poisonous gases and fumes, resulting in death by asphyxiation to plaintiffs' decedents.

#### XI.

That on and prior to July 11, 1973, pursuant to the Federal Aviation Act, defendant United States of America by and through the Administrator of the Federal Aviation Administration and its employees and agents, acting within the scope of their employment, exercised a non-delegable duty to issue such minimum standards governing the design, materials, workmanship, and construction of civil aircraft as was necessary to promote the safety of such aircraft in air commerce, including international air commerce.

#### XII.

That prior to July 11, 1973, employees and agents of the defendant United States, exercised a non-delegable duty to exercise reasonable care in the formulation, issuance, publication, notification and enforcement of minimum standards governing the design, materials, workmanship and construction of aircraft intended to be employed in air commerce including international air commerce as well as a non-delegable duty to warn operators of and passengers in

such aircraft of any dangers inherent in said design, materials, workmanship and construction.

XIII.

That prior to July 11, 1973, the defendant, by and through the Administrator of the Federal Aviation Administration and its employees and agents negligently issued minimum standards relating to the flammability of materials used in the interior of civil aircraft including the Boeing 707 aircraft.

XIV.

That prior to July 11, 1973, the defendant, by and through the Administrator of the Federal Aviation Administration and its employees and agents, acting within the scope of their employment, negligently failed to issue minimum standards relating to the toxicity of materials in the interior of civil aircraft including Boeing 707 aircraft.

XV.

That prior to July 11, 1973, the defendant, by and through the Administrator of the Federal Aviation Administration and its employees and agents, acting within the scope of their employment, negligently certificated the interior design of the Boeing 707 type aircraft, including but not limited to, the lavatories thereof, the air conditioning and pressurization system thereof, the oxygen system thereof, the smoke evacuation system thereof, and the manuals and instructions pertaining thereto.

XVI.

That prior to July 11, 1973, the defendant, by and through the Administrator of the Federal Aviation Administration and its employees and agents, acting within the scope of their employment, negligently certificated the production of the subject aircraft, and following its production, negligently issued an airworthiness certificate relating thereto.

XVII.

That prior to July 11, 1973, the defendant, by and through the Administrator of the Federal Aviation Admin-

istration and its employees and agents, acting within the scope of their employment, negligently failed to warn operators of said aircraft and the flying public including plaintiffs' decedents herein, of the dangers inherent in the interior design of the Boeing 707 aircraft, all of which was well known to defendant.

#### XVIII.

That the aforesaid negligence of the defendant, by and through its employees and agents, acting within the scope of their employment, was in breach of duties imposed by the Federal Aviation Act, the Civil Air Regulations, the Federal Aviation Regulations, and the common law duty to exercise reasonable care in the premises.

#### XIX.

That the death of plaintiffs' decedents aboard the subject aircraft on July 11, 1973, was proximately caused by the negligent breach on the part of the defendant of its continuing, nondelegable duties described above.

#### XX.

That as a direct and proximate result of the defendant's negligent and wrongful conduct in the premises, plaintiffs have sustained pecuniary damages, including loss of support, services, counsel, society, companionship, consortium, care, nurture, training, the prospect of inheritance of future accumulations, and other damages, including grief and moral damages.

#### XXI.

That as a direct and proximate result of the defendant's negligent and wrongful conduct in the premises, each of the passengers aboard the subject aircraft suffered great physical pain and mental anguish in contemplation of impending disaster and death, personal injuries and property loss. As a result, the estate of each of the plaintiffs' decedents has sustained these and other damages.

#### XXII.

That by reason of all the foregoing, plaintiffs Emma Rosa Mascher, Alfred Rosa, Guido Rosa, Raymond Rosa, Bruno

Rosa, Corido Rosa, and Ernest Rosa have been damaged in the sum of Two Million Two Hundred Seventy Thousand (\$2,270,000.00) Dollars; plaintiffs Honor Christine Brogan and Thomas James Patrick Brogan have been damaged in the sum of Three Million Five Hundred Thousand (\$3,500,000.00) Dollars; plaintiffs Antoine Marie Rulhe and Denise Louise Rulhe have been damaged in the sum of One Million Four Hundred Seventy-Five Thousand (\$1,475,000.00) Dollars; plaintiffs Claude Marie-Josephe Arnaud Lavaud, Francois Jerome Gabriel Lavaud, Sophie Claude Marie Lavaud, Philippe Jean Marie Lavaud, Brigitte Lavaud Pasteyer, and Catherine Christiane Elisabeth Lavaud have been damaged in the sum of Five Million Two Hundred Thousand (\$5,200,000.00) Dollars; plaintiffs Shri Prithi Singh and Ranjeeta Prithi Singh have been damaged in the sum of One Million One Hundred Eighty Thousand (\$1,180,000.00) Dollars; plaintiffs Dirce Baratella in Dainelli, Albertina Dainelli, Ugo Dainelli, Ornella Dainelli in Allegri, and Regina Dainelli in Pisano, have been damaged in the sum of One Million Two Hundred Twenty Thousand (\$1,220,000.00) Dollars; plaintiffs Zelia Rivetto Griglio and Sergio Griglio have been damaged in the sum of Two Million Six Hundred Thousand (\$2,600,000.00) Dollars; plaintiffs Francesca Griglio Bongiovanni, Fernanda Bongiovanni and Alberto Bongiovanni have been damaged in the sum of Two Million Nine Hundred Ten Thousand (\$2,910,000.00) Dollars; plaintiff Ubaldo Zanardi has been damaged in the sum of Two Hundred Fifty Thousand (\$250,000.00) Dollars; plaintiffs Maria Lucia Bruder, Thomas Bruder and Georgia Bruder have been damaged in the sum of One Million Five Hundred Thousand (\$1,500,000.00) Dollars; plaintiffs Halim Aidar Junior, Cristina Berriel Aidar and Claudia Berriel Aidar have been damaged in the sum of One Million Seven Hundred Fifty Thousand (\$1,750,000.00) Dollars; plaintiff Ana Lucia Teixeira de Andrade Figueira has been damaged in the sum of Two Million (\$2,000,000.00) Dollars; plaintiffs Palmira de Oliveira Judge, Zulmira de Oliveira Homem de Mello, Amalia da Cunha e Oliveira, Thereza Cunha de Souza Andrade, Alexandrina de Oliveira Dalmaso, Elio

Afonso da Cunha, Selene da Cunha Moraes, Eros Afonso da Cunha, Terezinha Afonso da Cunha and Antonio Afonso da Cunha have been damaged in the sum of One Million (\$1,000,000.00) Dollars; plaintiffs Geni Nilsa Diefenthaler, Ignes Diefenthaler, Carla Diefenthaler, Agnes Diefenthaler, and Marcos Diefenthaler have been damaged in the sum of Two Million (\$2,000,000.00) Dollars; plaintiffs Marcienne Chabrerat Mas, Christian Mas, and Joelle Mas Gros have been damaged in the sum of One Million Five Hundred Thousand (\$1,500,000.00) Dollars; plaintiffs Anna Bernstrom Fauconnier, Peter Fauconnier and Mathias Fauconnier have been damaged in the sum of Two Million Five Hundred Thousand (\$2,500,000.00) Dollars; plaintiffs Pierre Sarda, Michel Sarda, Alain Sarda and Nicole Sarda de Claviere d'Hust have been damaged in the sum of One Million (\$1,000,000.00) Dollars; plaintiffs Maddy Marie Dietrich Aufrere de la Preugne, Solange Aufrere de la Preugne, Isabelle Aufrere de la Preugne, and Anne Marie Aufrere de la Preugne have been damaged in the sum of Three Million (\$3,000,000.00) Dollars; plaintiffs Lucienne Dando Tardif, Gerard Tardif and Claire Tardif Marette have been damaged in the sum of Two Million Five Hundred Thousand (\$2,500,000.00) Dollars; plaintiffs Jacqueline Dubois Fardel, Doris-Marie Fardel and Nicole-Suzanne Fardel have been damaged in the sum of Two Million Five Hundred Thousand (\$2,500,000.00) Dollars; plaintiffs Danielle Cojan Ghorbanian, Pascal Karim Ghorbanian and Philippe Guive Ghorbanian have been damaged in the sum of Two Million Six Hundred Thousand (\$2,600,000.00) Dollars; plaintiffs Marie Sieber-Tschirky, Valentin Sieber, Hedwig Graf-Sieber and Rose-Marie Sieber have been damaged in the sum of Two Million Five Hundred Thousand (\$2,500,000.00) Dollars; plaintiffs Maria Neusa Consoni Guimaraes, Cristina Lonsoni Guimaraes, Ana Luiza Consoni Guimaraes, Silvia Consoni Guimaraes, Luiz Humberto Guimaraes, and Elza Helena Consoni Guimaraes have been damaged in the sum of Two Million (\$2,000,000.00) Dollars; plaintiff Charlotte Danzberg has been damaged in the sum of Five Hundred Thousand (\$500,000.00) Dollars; plaintiffs Egon Erny Kirst and Nelly

Ebling Kirst have been damaged in the sum of Seven Hundred Fifty Thousand (\$750,000.00) Dollars; plaintiff Maria Reginato Paganella has been damaged in the sum of Five Hundred Thousand (\$500,000.00) Dollars; plaintiffs Clara Zimmerman de Peluffo, Santiago Peluffo, Veronica Peluffo, Agustina Peluffo and Josefina Peluffo have been damaged in the sum of Two Million (\$2,000,000.00) Dollars; plaintiff Enilda Fernandez de Sortino has been damaged in the sum of Eight Hundred Thousand (\$800,000.00) Dollars; plaintiffs Suzanne Seve Jacquot, Christophe Jacquot, Denis Jacquot, and Charlotte Jacquot have been damaged in the sum of Two Million Four Hundred Fifty Thousand (\$2,450,000.00) Dollars; plaintiff Emese Hegedus has been damaged in the sum of One Million Five Hundred Thousand (\$1,500,000.00) Dollars; plaintiff Maria Roth has been damaged in the sum of One Million Five Hundred Thousand (\$1,500,000.00) Dollars; plaintiffs Margit Tarnay, Tunde Tarnay, and Laszlo Tarnay have been damaged in the sum of Two Million Six Hundred Fifty Thousand (\$2,650,000.00) Dollars; plaintiffs Felix Gutierrez Acuna and Maria Mercedes Gutierrez Acuna have been damaged in the sum of One Million Five Hundred Thousand (\$1,500,000.00) Dollars; plaintiffs Maria Luiza Pereira de Almeida Leite Ribeiro, Patricia Leite Ribeiro, and Maria Fernanda Leite Ribeiro have been damaged in the sum of One Million Five Hundred Thousand (\$1,500,000.00) Dollars; plaintiffs Marina Menezes de Oliveira Carvalho and Sergio Menezes de Oliveira Carvalho have been damaged in the sum of Three Million Five Hundred Thousand (\$3,500,000.00) Dollars; plaintiffs Magdalena de Auge, Enrique Auge and Juan Claudio Auge have been damaged in the sum of Two Million Five Hundred Thousand (\$2,500,000.00) Dollars; plaintiffs Myriam Collier de Lamare, Guilherme de Lamare and Claudia de Lamare have been damaged in the sum of One Million Five Hundred Thousand (\$1,500,000.00) Dollars; plaintiffs Jose Narciso da Fonseca e Silva and Isis Souza da Fonseca e Silva have been damaged in the sum of Seven Hundred Fifty Thousand (\$750,000.00) Dollars; plaintiffs Geraldo Gouveia Carrazedo and Celina Correa Carrazedo have been damaged in the sum of Five Hundred Thousand

(\$500,000.00) Dollars; plaintiffs Claudia de Souza Weiss, Fabria de Souza Scavone and Alexei Scavone have been damaged in the sum of Nine Hundred Fifty Thousand (\$950,000.00) Dollars; plaintiffs Walkiria di Vizio Silvana di Vizio, Eduardo di Vizio and Claudia di Vizio have been damaged in the sum of One Million Five Hundred Thousand (\$1,500,000.00) Dollars; plaintiff Paulina Knijnik has been damaged in the sum of Five Hundred Thousand (\$500,000.00) Dollars; plaintiff's Amal Veron Yglesias, Raul Yglesias and Elis Aparecida Yglesias have been damaged in the sum of One Million Five Hundred Thousand (\$1,500,000.00) Dollars; plaintiffs Moise Daurier, Louis Daurier, Jeanne Daurier, Andre Daurier, Albert Daurier, Georges Daurier, Victor Daurier, Marie Daurier, Yvette Meyer, Helene Barnaud, and Paulette Haro have been damaged in the sum of Two Million Three Hundred Thousand (\$2,300,000.00) Dollars; plaintiffs Hildegarde Juesten, Dr. Ulrich Juesten and Dr. Wolfgang Juesten have been damaged in the sum of One Million Five Hundred Thousand (\$1,500,000.00) Dollars; plaintiffs Nancy Palleta dos Santos, Augustinho dos Santos Junior and Airton Palleta dos Santos have been damaged in the sum of One Million Five Hundred Thousand (\$1,500,000.00) Dollars; plaintiffs Luciana Zavaroni and Francesca Zavaroni have been damaged in the sum of Two Million Five Hundred Thousand (\$2,500,000.00) Dollars; plaintiffs Monika Colli, Sven Colli, and Tanja Colli have been damaged in the sum of Two Million (\$2,000,000.00) Dollars; plaintiffs Francisca Arlita Barbosa Quindere, Paulo Barbosa Quindere, Renata Barbosa Quindere, Adriana Barbosa Quindere, Cristina Barbosa Quindere and Luciana Barbosa Quindere have been damaged in the sum of Three Million (\$3,000,000.00) Dollars; plaintiffs Cornelia Koeman-Nieuweborger, Maartje Grietje Koeman, Klaas Evert Koeman and Martin Dik Koeman have been damaged in the sum of Three Million (\$3,000,000.00) Dollars; plaintiffs Luiz Tiellet, Rivadavia Tiellet, Aristotelino Tiellet, Eloah Tiellet da Silva, Luiza de Lourdes Tiellet Oliveira Hilda Alvares, Celanira Tiellet Borges, Therezinha Tiellet Bueno and Dolores Velloso Vianna have been damaged in the sum of Four Million

(\$4,000,000.00) Dollars; plaintiffs Waldemar Martins Ferreira Filho, Waldemar Ferreira Netto, Ana Maria Martins Ferreira and Maria Antonieta Martins Ferreira have been damaged in the sum of One Million Five Hundred Thousand (\$1,500,000.00) Dollars; plaintiffs Maria Isabel Malta Cardozo Barreto Prado, Evangelina Malta Cardozo Junqueira de Aquino, Carlota Josephina Malta Cardozo dos Reis Boto, Francisco Malta Cardozo Neto, Anna Maria Martins Ferreira, Maria Antonieta Martins Ferreira, and Waldemar Ferreira Netto have been damaged in the sum of One Million Five Hundred Thousand (\$1,500,000.00) Dollars.

WHEREFORE, the plaintiffs demand judgment against the defendant, United States of America, in the total sum of One Hundred Million, Six Hundred Five Thousand (\$100,605.000.00) Dollars, and each of them individually demands judgment as set forth more particularly in paragraph XXII of this Complaint, incorporated herein by reference, together with interest thereon, and the costs and disbursements of this action.

SMILEY & LEAR, P.C.  
1819 H Street, N.W., Suite 500  
Washington, D.C. 20006  
Telephone: (202) 466-8171

/s/ \_\_\_\_\_  
ROBERT R. SMILEY, III  
SPEISER & KRAUSE, P.C.  
200 Park Avenue  
New York, New York 10017  
Telephone: (212) 661-0011

/s/ \_\_\_\_\_  
CHARLES F. KRAUSE  
SPEISER, KRAUSE & MADOLE  
1216 Sixteenth Street, N.W.  
Washington, D.C. 20036  
Telephone: (202) 223-8501

/s/ \_\_\_\_\_  
DONALD W. MADOLE

OF COUNSEL:  
BERRIS & SETON

*1801 Century Park East  
Los Angeles, California 90067*

By: /s/ \_\_\_\_\_  
TED ORLISS

# CLAIM FOR DAMAGE, INJURY, OR DEATH

INSTRUCTIONS: Prepare in ink or typewriter. Please read carefully the instructions on the reverse side and supply information requested on both sides of this form. Use additional sheet(s) if necessary.

OM and B  
Approval No.  
80-R111

1. SUBMIT TO:  Federal Aviation Administration 800 Independence Avenue, S.W. Washington, D.C. 20591		2. NAME AND ADDRESS OF CLAIMANT (Number, street, city, State, and Zip Code)	
3. TYPE OF EMPLOYMENT  <input type="checkbox"/> MILITARY <input checked="" type="checkbox"/> CIVILIAN	4. AGE	5. MARITAL STATUS	6. NAME AND ADDRESS OF SPOUSE, IF ANY (Number, street, city, State, and Zip Code)
7. PLACE OF ACCIDENT (Give city or town and State; if outside city limits, indicate mileage or distance to nearest city or town)  Saulx les Chartreux, France			8. DATE AND DAY OF ACCIDENT  11 July 1973
9. TIME (A.M OR P.M)  1358 GMT			
10. AMOUNT OF CLAIM (in dollars)			
A. PROPERTY DAMAGE	B. PERSONAL INJURY	C. WRONGFUL DEATH	D. TOTAL
11. DESCRIPTION OF ACCIDENT (State below, in detail, all known facts and circumstances attending the damage, injury, or death, identifying persons and property involved and the cause thereof) Claimants decedent died as a result of inhalation of smoke & toxic gases emitted by a fire which burned out of control in the lavatory of that certain Boeing 707 aircraft bearing Brazilian registry PP-VJZ, manufacturer's serial No. 19841 on July 11, 1973. Conditions producing the fire were proximately caused by the negligence of agents of the F.A.A. in the issuance of type, production & airworthiness certificates relating to said aircraft.			
12. PROPERTY DAMAGE  NAME AND ADDRESS OF OWNER, IF OTHER THAN CLAIMANT (Number, street, city, State, and Zip Code)			
BRIEFLY DESCRIBE KIND AND LOCATION OF PROPERTY AND NATURE AND EXTENT OF DAMAGE (See instructions on reverse side for method of substantiating claim)			
13. PERSONAL INJURY  STATE NATURE AND EXTENT OF INJURY WHICH FORMS THE BASIS OF THIS CLAIM			
14. WITNESSES  NAME ADDRESS (Number, street, city, State, and Zip Code)			
Capt. Gilberto Aranjo da Silva 2d Officer Alvio Basso Engineer Claunor Bello Steward Luis Coelho  <del>Stewardess Andrea Pita</del>	c/o Varig Airlines Rio de Janeiro Brazil		
I CERTIFY THAT THE AMOUNT OF CLAIM COVERS ONLY DAMAGES AND INJURIES CAUSED BY THE ACCIDENT ABOVE AND AGREE TO ACCEPT SAID AMOUNT IN FULL SATISFACTION AND FINAL SETTLEMENT OF THIS CLAIM			
15. SIGNATURE OF CLAIMANT (This signature should be used in all future correspondence)	16. DATE OF CLAIM		
CIVIL PENALTY FOR PRESENTING FRAUDULENT CLAIM  The claimant shall forfeit and pay to the United States the sum of \$2,000, plus double the amount of damages sustained by the United States. (See R.S. §3490, 5438; 31 U.S.C. 231.)		CRIMINAL PENALTY FOR PRESENTING FRAUDULENT CLAIM OR MAKING FALSE STATEMENTS  Fine of not more than \$10,000 or imprisonment for not more than 5 years or both. (See 62 Stat. 698, 749; 18 U.S.C. 287, 1001.)	

UNITED STATES DISTRICT COURT  
CENTRAL DISTRICT OF CALIFORNIA

Civil No. 78-0914

EMMA ROSA MASCHER, ALFRED ROSA, GUIDO ROSA,  
RAYMOND ROSA, BRUNO ROSA, CORIDO ROSA, AND ERNEST  
ROSA, INDIVIDUALLY AND AS HEIRS AND LEGATEES OF ELOIO  
ROSA, DECEASED, ET AL., PLAINTIFFS,

v.

UNITED STATES OF AMERICA, DEFENDANT

---

**DEFENDANT UNITED STATES OF AMERICA'S  
ANSWER TO COMPLAINT**

I.

The allegations contained in paragraph I of plaintiffs' complaint presents a question of law which is respectfully referred to the Court for its determination.

II.

Defendant United States of America admits that administrative claims were filed with the Department of Transportation, Federal Aviation Administration, and that these claims were denied.

III.

Defendant United States of America denies each and every allegation contained in paragraph III of plaintiffs' complaint.

IV.

The allegations contained in paragraph IV of plaintiffs' complaint presents a question of law which is respectfully referred to the Court for its determination.

V.

Defendant United States of America has insufficient knowledge or information upon which to form a belief as to

the truth of the allegations contained in paragraph V of plaintiffs' complaint.

VI.

Defendant United States of America has insufficient knowledge or information upon which to form a belief as to the truth of the allegations contained in paragraph VI of plaintiffs' complaint.

VII.

Defendant United States of America has insufficient knowledge or information upon which to form a belief as to the truth of the allegations contained in paragraph VII of plaintiffs' complaint.

VIII.

Defendant United States of America has insufficient knowledge or information upon which to form a belief as to the truth of the allegations contained in paragraph VIII of plaintiffs' complaint.

IX.

Defendant United States of America has insufficient knowledge or information upon which to form a belief as to the truth of the allegation contained in paragraph IX of plaintiffs' complaint.

X.

Defendant United States of America has insufficient knowledge or information upon which to form a belief as to the truth of the allegations contained in paragraph X of plaintiffs' complaint.

XI.

Defendant United States of America denies each and every allegation contained in paragraph XI of plaintiffs' complaint.

XII.

Defendant United States of America denies each and every allegation contained in paragraph XII of plaintiffs' complaint.

**XIII.**

Defendant United States of America denies each and every allegation contained in paragraph XIII of plaintiffs' complaint.

**XIV.**

Defendant United States of America denies each and every allegation contained in paragraph XIV of plaintiffs' complaint.

**XV.**

Defendant United States of America denies each and every allegation contained in paragraph XV of plaintiffs' complaint.

**XVI.**

Defendant United States of America denies each and every allegation contained in paragraph XVI of plaintiffs' complaint.

**XVII.**

Defendant United States of America denies each and every allegation contained in paragraph XVII of plaintiffs' complaint.

**XVIII.**

Defendant United States of America denies each and every allegation contained in paragraph XVIII of plaintiffs' complaint.

**XIX.**

Defendant United States of America denies each and every allegation contained in paragraph XIX of plaintiffs' complaint.

**XX.**

Defendant United States of America denies each and every allegation contained in paragraph XX of plaintiffs' complaint.

**XXI**

Defendant United States of America denies each and every allegation contained in paragraph XXI of plaintiffs' complaint.

**XXII.**

Defendant United States of America denies each and every allegation contained in paragraph XXII of plaintiffs' complaint.

**AFFIRMATIVE DEFENSES**

As and for its affirmative defenses the United States of America asserts as follows:

**XXIII.****FIRST AFFIRMATIVE DEFENSE**

Plaintiff failed to state a claim upon which relief can be granted against this defendant.

**XXIV.****SECOND AFFIRMATIVE DEFENSE**

Defendant United States of America and its agencies and employees exercised due care and diligence in all matters alleged in the complaint herein and no act or failure to act of this defendant or any agency or employee of this defendant was the proximate cause of any damage, loss or injury to plaintiff.

**XXV.****THIRD AFFIRMATIVE DEFENSE**

This Court lacks jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §2680(a)(h) and (k).

**XXVI.****FOURTH AFFIRMATIVE DEFENSE**

No cause of action lies against the United States for the promulgation of minimum regulatory standards.

**XXVII.****FIFTH AFFIRMATIVE DEFENSE**

No cause of action lies against the United States for the certification of aircraft.

**WHEREFORE**, Defendant, United States of America, demands that the Complaint herein be dismissed as against it, together with all appropriate costs, fees and expenses and for such other and further relief as the Court may deem just and proper.

ANDREA SHERIDAN ORDIN  
*United States Attorney*

/s/

WILLIAM D. BLAKELY  
*Trial Attorney*  
*Aviation Section, Civil Division*  
*U.S. Department of Justice*  
*Washington, D.C. 20530*  
*202-739-4309*

*Of Counsel:*

JOHN R. HARRISON  
*Assistant Chief Counsel*

GARY W. ALLEN  
*Attorney*  
*Federal Aviation Administration*  
*U.S. Department of Transportation*  
*Washington, D.C. 20591*

**CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that a true and correct copy of the foregoing Defendant's Answer To Complaint was mailed this 16th day of May, 1978, to:

ROBERT R. SMILEY, III  
SMILEY & LEAR, P.C.  
*1819 H Street, N.W., Suite 500*  
*Washington, D.C. 20006*

CHARLES F. KRAUSE  
SPEISER & KRAUSE, P.C.  
*200 Park Avenue*  
*New York, New York 10017*

DONALD W. MADOLE  
SPEISER, KRAUSE & MADOLE  
*1216 Sixteenth Street, N.W.*  
*Washington, D.C. 20036*

/s/ \_\_\_\_\_  
WILLIAM D. BLAKELY

ROBERT R. SMILEY, Esq.  
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*200 Park Avenue*  
*New York, New York 10017*

Attorneys for Plaintiffs  
Mascher, et al.

UNITED STATES DISTRICT COURT  
CENTRAL DISTRICT OF CALIFORNIA

Case NO. CV-78-0914-WPG

EMMA ROSA MASCHER; ALFRED ROSA; GUIDO ROSA;  
RAYMOND ROSA; BRUNO ROSA; CORIDO ROSA; AND ERNEST  
ROSAD, INDIVIDUALLY AND AS HEIRS AND LEGATEES OF  
EILO ROSA, DECEASED, ET AL., PLAINTIFFS,

v.

DEFENDANT

**PLAINTIFFS MASCHER ET AL.'S FIRST AMENDED  
COMPLAINT FOR WRONGFUL DEATH, SECOND COUNT**

Plaintiffs, through their undersigned attorneys Timothy J. Cook, Robert R. Smiley, Speiser and Krause P.C. and Speiser, Krause and Madole, amending their complaint to add a second Cause of Action against defendant United States of America allege as follows:

I

Plaintiffs incorporate by reference, paragraphs I-X, XIII-XVII, XXI and XXII of the Complaint herein filed on March 9, 1980 as if fully restated herein.

**XXIII**

That on and prior to July 11, 1973, pursuant to the Federal Aviation Act, defendant United States of America by and through the Administrator of the Federal Aviation Administration and its employees and agents, acting within the scope of their employment, undertook to issue such minimum standards governing the design, materials, workmanship, and construction of civil aircraft as was necessary to promote the safety of passengers of such aircraft in air commerce, including international air commerce, thereby inducing reliance on such activities by the airlines and passengers alike.

**XXIV**

Prior to July 11, 1973, pursuant to certain bilateral agreements between the United States of America and the Government of Brazil, and in reliance upon certain inspections of the subject aircraft allegedly conducted by employees of the Federal Aviation Administration or its predecessor agency, the Government of Brazil certified the subject aircraft as airworthy.

**XXV**

Agents of the Federal Aviation Administration or its predecessor agency negligently failed to make inspections which the said agency undertook to make, or in the alternative, conducted said inspections negligently.

**XXVI**

That as a direct and proximate result of the defendant's negligent inspection, or failure to inspect, plaintiffs have sustained pecuniary damages, including loss of support, services, counsel, society, companionship, consortium, care, nurture, training, the prospect of inheritance of future accumulations, and other damages, including grief and moral damages, as more particularly appears in paragraph XX of the complaint.

**XXVII**

That as a direct and proximate result of the defendant's negligent inspection or failure to inspect, each of the pas-

sengers aboard the subject aircraft suffered great physical pain and mental anguish in contemplation of impending disaster and death, personal injuries and property loss. As a result, the estate of each of the plaintiffs' decedents has sustained these and other damages, as more particularly appears in paragraph XXI of the complaint.

#### XXVIII

That the aforesaid acts or omissions of the defendant, by and through its employees and agents, acting within the scope of their employment, was in breach of duties arising from the undertaking of inspection which, if negligently performed or omitted, increased the risk of harm to plaintiffs and their decedents.

#### XXIX

That the aforesaid acts or omission of the defendant, by and through its employees and agents, acting within the scope of their employment:

1. were undertaken to protect the safety of aircraft and passengers in air commerce, including international air commerce;
2. proximately caused a cabin fire which was a clearly foreseeable result of a failure to inspect, or a negligent inspection;
3. were the direct proximate causes of the deaths of plaintiffs' decedents;
5. was clearly contrary to the explicit safety policies of air commerce of the United States and the international community.

WHEREFORE, the plaintiffs demand judgment against the defendant United States of America in the total sum of One Hundred Million, Six Hundred Five Thousand (\$100,605,000.00) Dollars, and each of them individually as set forth more particularly in paragraph XXII of the Complaint, incorporated herein by reference, together with interest thereon, and the costs and disbursements of this action.

Respectfully submitted.

/s/

ROBERT R. SMILEY  
SMILEY, MURPHY, OLSON & GILMAN  
1819 H STREET, N.W.  
WASHINGTON, D.C. 20006

/s/

JOSEPH T. COOK  
*Speiser, Krause & Madole*  
700 South Flower Street  
Los Angeles, CA 90017  
*Attorneys for Plaintiffs*

OFFICE OF THE SECRETARY OF STATE  
FOR TRANSPORTATION  
BOARD OF INQUIRY

ACCIDENT INVOLVING THE BOEING 707 PP-VJZ OF  
THE VARIG COMPANY  
(SAULX-les-CHARTREUX-July 11, 1973)

FRENCH VARIG REPORT  
Released 4/6/76

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- 2.5 Information on the crew
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3. ANALYSIS OF THE FACTS  
4. CONCLUSIONS

## DECREE CREATING THE BOARD OF INQUIRY

By decree of July 12, 1973, a Board of Inquiry was established for examining the circumstances, seeking the causes and bringing out the facts in the accident occurring on July 11, 1973 approaching Orly Airport involving a B 707, registered PP-VJZ of the Brazilian Company Varig.

The Board is composed of the following members:

Mr. René LEMAIRE, Engineer, Civil Engineering Department, Chief of General Inspection for Civil Aviation, CHAIRMAN;  
 General Maurice MARTINET, VICE-CHAIRMAN;  
 Mr. Philippe TESTU, check pilot, Head of the Flight Control Agency;  
 Mr. Paul CAROUR, general engineer, civil aviation;  
 Mr. Paul GUILLEVIC, chief engineer, civil aviation;  
 Dr. GIGNOUX, Vice-President of the Civil Aeronautics Medical Council;  
 Mr. André GELY, aircraft commander for Air France.

### 1. SUMMARY

<i>Date of the Accident</i>	<i>Aircraft</i>
Wednesday, July 11, 1973	Boeing 707 PP-VJZ
at 1402 UT*	<i>Owner and Operator</i>
	The Brazilian Company
<i>Location of the accident</i>	VARIG
SAULX-les-CHARTREUX	
5 km southwest of the threshold of Orly runway 07	<i>Persons aboard</i>
	Captain DA SILVA
<i>Type of flight</i>	+ 16 (2 crews)
Regular international transport, RIO DE	117 passengers
JANEIRO—PARIS	
<i>Summary of the accident</i>	
Fire on board during approach to ORLY	
Forced landing 5 km before the runway threshold, in the countryside near Longjumeau	
Wreckage destroyed by fire	
<i>Consequences</i>	

<i>Personnel</i>	<i>Material</i>			<i>Third Parties</i>	
	<i>Killed</i>	<i>Injured</i>	<i>Damage</i>	<i>Lading</i>	
Crew	7	10	Destroyed by impact and fire	Destroyed	Damage to crops
Passengers	116	1			

\*All times mentioned in this report are expressed in universal time (UT). Legal time may be obtained by adding one hour thereto.

## 2. TECHNICAL INVESTIGATIONS

### 2.1 The Flight

On July 11, 1973 the B-707, PP-VJZ flies the regular VARIG line RG 820 between Rio de Janeiro and Paris.

At 3:03 the plane takes off from GALEAO airport with a weight of 326,700 pounds with 117 passengers and 17 crew members aboard.

At 3:50 level 330, cruising level, is reached. The flight proceeds with no particular difficulty at a Mach in the vicinity of 0.8.

At 6:26 the plane ascends to level 370, and at 11:53, to level 390. Cruising is completed at level 350.

At 13:40, when the plane makes contact with the West Terminal sector of the Paris ACC, it is in descent in the direction of the CHARTRES VOR (CHW), estimated time 13:52.

At 13:43, it passes level 230, and at 13:46, level 170.

At 13:50, Paris ACC has the plane turn slightly to the right, short-circuiting CHW, and authorizes continuation of the descent to level 100, reached at 13:52, then level 80, reached at 13:55. At this time, the plane is heading towards the TOUSSUS (TSU) VOR.

At 13:57 the VARIG 820 is transferred to ORLY approach, with which it makes contact one minute later.

It receives instructions to maintain level 80 and to head for OLS, which will bring it into the tail-wind branch of runway 26, in operation at ORLY. The meteorological conditions are excellent and no special procedure is necessary.

At 13:58'20" the aircraft signals a "fire aboard" and requests an "emergency descent".

According to the Captain, this request follows the announcement by the cabin crew of smoke in the rear of the passenger cabin.

At 1359 the plane is authorized to descend to 3,000 feet for landing on runway 07, only 22 MN away and which should allow a direct approach.

In response to a request from Control, the pilot signals "total fire", while the radar brings it onto line 07 and situates it 10 MN from the threshold. According to the crew, this announcement coincides with the cabin steward's alarming indication that the situation is (illegible) invading the cabin and that the passengers are being asphyxiated. The transponder code appears for about one more minute on the Orly radar screen.

The crew puts on the oxygen masks and smoke goggles. However, the black smoke is invading the cockpit to such an extent that the pilots can no longer see the instruments. The side windows are open. Judging the situation desperate, the Captain decides to effect a forced landing.

This is achieved at 14:03, the pilots viewing the ground from the side windows.

Witnesses observe the plane just before its forced landing. They notice a trail of smoke escaping from below the rear fuselage.

The landing site selected, situated in bearing 230 of the threshold of runway 07, 5 km from the latter, is a flat area with small cultivations having a mean altitude of 76 meters, south of the village of SAULXIER (Municipality of SAULX-les-CHARTREUX, Essonne).

The landing gear were extended, the flaps partially extended, the plane at a heading of about 080°, slightly inclined to the left and with a high, nose-up longitudinal attitude.

It touched down just beyond a small road after it had taken the tops off a few small fruit trees. Impact was severe. The left landing gear yielded immediately and was followed shortly thereafter by the right landing gear. The plane then slid on its jet engines, then on its belly for almost 500 m. However, the unequal loss of the main landing gear and the initial inclination to the left triggered a skidding movement which increased until the plane came to a halt.

The wreck came to a halt at heading 280° after losing all of its jet engines and half of the left wing. The forced landing was completely successful. The fuselage suffered little

damage. Only the bottom of the hull behind the main landing gear wells is misshapen.

According to witnesses, the only visible sign of fire after the plane stopped is smoke issuing to the right of the base of the fin.

Ten occupants of the plane escape by their own means: 4 through the right side-window of the cockpit, 4 through the left side-window, 1 through the left front passenger door, 1 through the right front galley door.

Among these ten survivors, all crew members, two (the pilots) were seriously injured, one of them by a tree limb which pierced the front pressure bulkhead while the plane was sliding along the ground, the others suffered from smoke inhalation.

These survivors were very soon met by the farmers witnessing the crash, but all intervention is impossible because of the fire which developed inside the cabin, making access therein impossible.

When the firemen arrive, 6 to 7 minutes after the crash, the fire has caved in the top part of the fuselage in the rear. The plane is filled with smoke. There is no sign of life. The firemen evacuate 4 motionless occupants through the forward door. Only one will survive.

A fire breaks out in the right wing between jet engine struts 3 and 4 shortly before the arrival of the firemen. The left and right wing-root tanks and the center tank do not ignite. On the other hand, fire will break out in the rear hold about one hour after the crash.

## 2.2 Victims Of The Crash

	<i>Crew</i>	<i>Passengers</i>	<i>Third Parties</i>
Fatally injured	7	116	none
Injured	10	1	none
Uninjured	0	0	

## 2.3 Damage To The Aircraft

The aircraft was completely destroyed, with the exception of equipment contained in the electronics hold, which it was possible to salvage.

#### 2.4 Damages To Third Parties

Damages to third-parties consist in the destruction of crops in the crash zone, first by the plane, then by the rescuers, and in the destruction of several fruit trees.

#### 2.5 Information On The Crew

Due to the length of the flight, there were 17 crew members, twice the normal number.

##### *Cockpit personnel*

###### AIRCRAFT COMMANDER (on duty)

Name: GILBERTO ARAUJO DA SILVA

Date and place of birth: November 12, 1923, SANTA LUZIA

Marital status: married

Airline transport pilot's certificate no. 238

License and ratings valid until February 28, 1974

Medical examination valid until September, 1973  
(unrestricted)

Joined the Company on February 1, 1952

Qualified for the B-707 on February 19, 1968

Date of last in-flight control: August 17, 1972

Date of last simulated control: February 26, 1973

Total flying time logged: 17,959.30

In the 30 days prior to the accident: 29.14

In the 48 hours prior to the accident: 14.03

On the type of plane involved in the accident: 4,642.44

Prior accidents: none

Rest before final flight: 35 hrs.

###### FIRST PILOT (on duty)

Name: ANTONIO FUZIMOTO

Date and place of birth: July 10, 1928 at BAURU

Marital status: married

Airline transport pilot's certificate no. 787

License and ratings valid until August 31, 1973

Medical examination valid until November, 1973  
(unrestricted)

Joined the Company on February 1, 1952

Qualified for the B-707 on December 5, 1969

Date of last in-flight control: February 21, 1973

Date of last simulated control: August 7, 1972  
Total flying time logged: 17,788.27 hrs.  
In the 30 days prior to the accident: 73 hrs. 47 min.  
In the 48 hours prior to the accident: 11.03  
On the type of plane involved in the accident: 3,331.33  
Prior accidents: none  
Rest before final flight: 61 hours.

**SECOND PILOT (on duty)**  
Name: ALVIO BASSO  
Date and place of birth: December 1, 1926 at BENTO GONCALVES  
Marital status: married  
Commercial pilot's certificate no. 1097  
Group A single-engine rating valid without limitation  
Medical examination valid until November 30, 1973  
(unrestricted)  
Joined the Company on May 4, 1954  
Qualified for the B-707 on September 14, 1962  
Total flying time logged: 12,613.02  
In the 30 days prior to the accident: 69.38  
In the 48 hours prior to the accident: 11.03  
On the type of plane involved in the accident: 5,055.46  
Prior accidents: none  
Rest before final flight: 230 hours

**SECOND PILOT**  
Name: RONALD UTERMOEHL  
Date and place of birth: May 2, 1950 at PONTA GROSSA  
Marital status: single  
Commercial pilot's certificate no. 3886  
Group A single-engine rating valid without limitation  
Medical examination valid until September 30, 1973  
(unrestricted)  
Joined the Company on February 16, 1970  
Qualified for the B-707 on December 6, 1972  
Total flying time logged: 1,540.19  
In the 30 days prior to the accident: 47.26  
In the 48 hours prior to the accident: 18.14  
On the type of plane involved in the accident: 768.41  
Prior accidents: none  
Rest before final flight: 24 hours.

**MECHANIC**

Name: CARLOS DIFFENTHALER NETO

Date and place of birth: September 20, 1934, PORTO ALEGRE

Marital status: married

Mechanic's certificate no. 731

License and rating valid until April 30, 1974

Medical examination valid until March 31, 1974  
(unrestricted)

Joined the Company on March 1, 1954

Qualified for B-707 on June 20, 1960

Date of last in-flight control: April 20, 1973

Date of last simulated control: April 4, 1973

Total flying time logged: 16,672.39

In the 30 days prior to the accident: 90.53

In the 48 hours prior to the accident: 15.43

On the type of plane involved in the accident: 11,922.59

Prior accidents: none

Rest before final flight: 33 hours

**MECHANIC (on duty)**

Name: CLAUNOR BELLO

Date and place of birth: February 7, 1935, SAO PAULO

Marital status: Married

Mechanic's certificate no. 814

License and rating valid until October 31, 1973

Medical examination valid until December 31, 1973  
(unrestricted)

Joined the Company on May 8, 1960

Qualified for B-707 on September 26, 1966

Date of last in-flight control: October 11, 1972

Total flying time logged: 9,655.16

In the 30 days prior to the accident: 64.32

In the 48 hours prior to the accident: 11.03

On the tye [sic] of plane involved in the accident: 4,827.39

Prior accidents: none

Rest before final flight: 63 hours

**NAVIGATOR (on duty)**

Name: ZILMAR GOMES DA CINHA

Date and place of birth: July 1, 1930, ARARUAMA

Marital status: married

Navigator's certificate: No. 114

License and ratings valid until January 31, 1974 (B-707 and DC-8)

Medical examination valid until June, 1974 (unrestricted)

Joined the Company on September 1, 1955

Qualified for B-707 on November 30, 1968

Date of last in-flight control: January 7, 1973

Total flying time logged: 14,140.09

In the 30 days prior to the accident: 74.42

In the 48 hours prior to the accident: 11.03

On the type of plane involved in the accident: 3,286.45

Prior accidents: none

Rest before final flight: 193 hours.

#### **NAVIGATOR**

Name: SALVADOR RAMOS HELENO

Date and place of birth: June 30, 1928, RIO DE JANEIRO

Marital status: married

Navigator's certificate no. 89

License and rating valid until July 31, 1973

Medical examination valid until January 22, 1974  
(unrestricted)

Joined the Company on August 30, 1951

Qualified for B-707 on September 12, 1965

Date of last in-flight control: February 4, 1973

Total flying time logged: 15,157.02

In the 30 days prior to the accident: 75.22

In the 48 hours prior to the accident: 11.03

On the type of plane involved in the accident: 5,937.22

Prior accidents: none

Rest before final flight: 183 hours.

#### **Cabin Crew**

##### **CHIEF STEWARD**

Name: JOAO EGIDIO GALLETI

Date and place of birth: July 21, 1939, LINS

Marital status: married

Certificate no. 1003

Ratings valid until December 16, 1973 (B-707 and DC-8)

Medical examination valid until November, 1973  
(unrestricted)

Joined the Company on September 1, 1962

Total flying time logged: 9,064

On the type of plane involved in the accident: 4,841

Rest before final flight: 96 hours

**STEWARD**

Name: EDEMAR GONCALVES MASCARENAS

Date and place of birth: October 20, 1941, CURITIBA

Marital status: married

Certificate no. 684

Ratings valid until January 29, 1975 (B-707 and DC-8)

Medical examination valid until January 14, 1974  
(unrestricted)

Joined the Company on October 6, 1965

Total flying time logged: 6,666

On the type of plane involved in the accident: 3,582

Rest before final flight: 96 hours.

**STEWARD**

Name: CARMELINO PIRES DE OLIVEIRA, Jr.

Date and Place of birth: May 20, 1942, SAO PAULO

Marital status: married

Certificate no. 1546

Ratings valid until October 12, 1973 (B-707 and DC-8)

Medical examination valid until September 23, 1973  
(unrestricted)

Joined the Company on June 12, 1967

Total flying time logged: 5,080

On the type of plane involved in the accident: 3,246

Rest before final flight: 48 hours.

**STEWARD**

Name: SERGIO CARVALHO BALBINO

Date and place of birth: April 18, 1945, ALEGRE

Martial status: single

Certificate no. 1704

Ratings valid until March 19, 1975 (B-707)

Medical examination valid until December 14, 1973  
(unrestricted)

Joined the Company on January 11, 1968

Total flying time logged: 3,983

On the type of plane involved in the accident: 2,407

Rest before final flight: 72 hours

**STEWARD**

Name: LUIZ EDMUNDO COELHO BRANDAO

Date and place of birth: May 17, 1939, RIO DE JANEIRO

Marital status: single

Certificate No. 1855

Ratings valid until June 16, 1974 (B-707 and DC-8)

Medical examination valid until January, 1975  
(unrestricted)

Joined the Company on September 20, 1968

Total flying time logged: 3,295

On the type of plane involved in the accident: 779

Rest before final flight: 96 hours

**STEWARD**

Name: ALAIN HENRI TERSIS

Date and place of birth: August 13, 1946, PARIS (France)

Marital status: single

Certificate no. 2653

Ratings valid until April 30, 1974 (B-707)

Medical examination valid until September 23, 1973  
(unrestricted)

Joined the Company on February 4, 1972

Total flying time logged: 937

On the type of plane involved in the accident: 886

Rest before final flight: 48 hours.

**STEWARDESS**

Name: ANDREE PHIA

Date and place of birth: January 22, 1949, CAIRO (Egypt)

Marital status: single

Certificate no. 2053

Ratings valid until May 31, 1975

Medical examination valid until November 11, 1973  
(unrestricted)

Joined the Company on October 1, 1969

Total flying time logged: 3,015

On the type of plane involved in the accident: 2,685

Rest before final flight: 120 hours.

**STEWARDESS**

Name: ELVIRA STRAUSS

Date and place of birth: April 28, 1949, FRANKFURT  
(Germany)

Marital status: single

Certificate no. 2601

Ratings valid until December 22, 1973

Medical examination valid until October 13, 1973  
(unrestricted)

Joined the Company on September 15, 1971

Total flying time logged: 1,250

On the type of plane involved in the accident: 1,181

Rest before final flight: 48 hours.

**CHIEF STEWARDESS**

Name: HANELORE DANZBERG

Date and place of birth: September 9, 1938, PORTO  
ALEGRE

Marital status: single

Certificate no. 265

Ratings valid until November 11, 1973

Medical examination valid until October 5, 1973  
(unrestricted)

Joined the Company on March 4, 1961

Total flying time logged: 7,989

On the type of plane involved in the accident: 4,345

Rest before final flight: 48 hours

## 2.6 Information On The Aircraft

The PP-VJZ was a Boeing 707 345 C (manufacturing no. 19.841) which was built for the SEABOARD Company, but purchased by VARIG Company, which had leased it to SEABOARD for some time.

Its Certificate of Airworthiness was no. 5712, 1968, which had been renewed the last time on February 12, 1973 and was valid until August 12, 1973.

Its total utilization time was 21,470 hours (5,677 landings). Utilization time since the annual inspection on May 15, 1973 was 539 hours. The last brief inspection occurred on June 24, 1973.

The history of the type JT3 D3 B jet engines is as follows:

Position	1	2	3	4
No.	632.945	645.946	667.821	668.246
Total hours	24,571	16,479	15,966	20,094
Hours since RG	2,225	1,025	3,698	4,594

The status of the plane regarding mandatory inspections and modifications is correct. Reports from flights prior to the accident reveal no irregularities which could have had a bearing on the accident.

Upon departure from RIO, the weight at takeoff was within the prescribed limits: 326,700 pounds, 153,000 pounds of which was fuel, as was the load distribution: 21.3%. The arrangement of the cabin corresponded to version F: one 1st-class cabin with 20 seats in 5 rows, a tourist cabin with 112 seats, 3 of which were —(illegible)—

Forward of the first class cabin there was a galley, a rest station for the crew and three rest rooms. To the rear of the tourist cabin there was a galley, three rest rooms and a closet.

### *Interior design*

Originally, the interior design of this plane was in conformity to specification Boeing D.619.676.

In 1971, the cabin decoration was replaced by a more attractive decoration, conforming to specification Boeing D6.25.601, called WIDE BODY LOOK.

The renovation basically concerned the seat covers, the panelling of the walls and ceiling of the passenger cabin, but the interior design of the rest rooms remained unchanged.

The renovation was performed by the VARIG Company. The material needed for the transformation was supplied by Boeing, with the exception of the carpeting and the fabric for the seat covers, which VARIG procured directly. These materials underwent quality control and in particular a test for flame resistance, before they were used.

Specification D6 25.601 was fully respected, with the exception of the PNC seat covers, where vinyl was replaced by

leather. This material nonetheless satisfies the requirements of the regulation.

#### *Location of the portable oxygen tanks*

During the life of the plane, the portable oxygen tanks for the rear area were placed in three different locations. Originally, they were stored near the cabin ceiling in the baggage racks. Incidents occurring during flight led the Company to seek a place that was cooler and less exposed to unexpected handling. They were then placed behind the last row of seats, near the floor, along the rear galley. It soon became evident that this place is used by passengers to store their carry-on baggage. For this reason, the Company had a closed rack built inside the closet to store the four oxygen tanks. The regulation requires only that it be easy to gain access to the tanks.

#### **2.7 Meteorological Conditions**

The meteorological conditions during the descent and the approach were excellent. Only observations were as follows:  
1300 hours—Wind 340/8 Kt

Clouds: 3/8 cirrus at 9000 m

Visibility: 15 km

Temperature: +24.9°

Dew point: +10.8° Humidity: 41%

QFE: 1008 QNH: 1018

1400 hours—Wind: 280/6 Kt

Clouds: 3/8 cirrus at 9000 m

3/8 alto cumulus at 3500 m

Visibility: 15 km

Temperature: +25.8°

Dew point: 11.4°

QFE: 1007 QNH: 1017

1400 UT corresponds to 1500 hours local time. There was almost peak brightness from the sun.

#### **2.8 Aids To Navigation**

The radio aids were functioning normally and had no influence on the occurrence of the accident.

## 2.9 Telecommunications

The telecommunications equipment was functioning properly.

The loss of contact during final approach can be attributed, on the one hand, to the fact that the crew did not position its selection box on "mask" and on the other hand, listening over the loud-speaker became impossible when the side windows were opened.

The recording of control radar images was utilizable.

## 2.10 Airports And Ground Facilities

The facilities played no part in the origin of the accident.

## 2.11 Flight Recorders

The PP-VJZ was equipped with a UDC flight data recorder type 542 (time — bearing — speed — altitude — vertical acceleration), but had no cockpit voice recorder.

The recorder was placed in the tail cone, behind the pressure bulkhead. The temperature of the cylindrical protective case was enough to burn off the paint from its front surface; however, the recorder itself was intact and the metal tape could be read normally.

The recorder functioned properly, but stopped during the descent at level 80. The examination of the apparatus excludes the possibility that this was caused by direct heating or linked to a mechanical failure.

The rear pressure bulkhead melted, but the slight damage it suffered in the rear point indicates that this bulkhead gave way after the crash.

The indications given by the crew and by the Air Traffic Control in their messages made it possible to establish a quite accurate correlation between the audio recordings and the FDR. This made it possible to establish the time the recorder stopped at  $13:58'30'' \pm 30$  seconds.

## 2.12 Wreckage

### 2.12.1 Tracks on the ground

The main landing gear of the plane make contact with ground that is hard and dry. The depth of the tracks shows that the plane set down cleanly.

A tilt to the left of about  $4^\circ$  was revealed by the fact that the left reactors touched the ground almost immediately after the main landing gear.

The elevation of the plane is indicated not only by the tracks and the slight damage suffered by the front of the fuselage, but especially by the fact that reactor no. 1 touched the ground before reactor no. 2.

The main landing gear give way almost immediately and the plane, resting on its inside reactors for 48 meters after the initial contact, slides thusly in a straight line for 265 meters before crossing a dirt road.

After this the track in the ground inclines to the left.

The plane is skidding to the right when it runs into an apple tree with its radome and left wing. A large branch from this apple tree enters the cockpit behind the instrument panel on the left-hand side, while the left wing is cut in half.

This shock accelerates the skidding and the plane comes to a halt 240 meters later, after travelling a total distance on the ground of almost 600 meters at a heading which is almost the opposite of the initial heading.

#### *2.12.2 Examination of the fuselage*

The damage to the fuselage during the crash is slight. It did not break. The ventral keel is intact. Structural deformations are minor, except near the rear hold. The lower skin is torn only at the level of the left rear corner of the rear hold. It is probable that the sliding over the ground flattened the hull bottom under this rear hold, thus creating a sharp angle which the final skidding opened. This tear, parallel to one of the stringers, extends over approximately one meter.

Under the floor, the fuselage suffered little damage from the fire. The electronic hold is almost intact. The front landing gear leg was torn off at the end of the skidding and remained perpendicular to the gear well. The front cargo compartment is simply blackened by soot. Its door is functioning. The oxygen tanks for this compartment are intact and show no sign of heating. The air conditioning hold is in good condition. The mid-wing frame is intact. The main landing gear wells suffered only from the tearing away of the gear. The cooling units were partially torn off just before the plane stopped.

The rear cargo compartment suffered from both the crash and the fire. The floor above this compartment was 75% melted. The oxygen tanks from this compartment did not explode. They are empty and burnt. The luggage was partially burnt. The unused compartment behind the cargo compartment, i.e., under the galley and the rest rooms, was damaged by fire in those places where there is no more upper floor. The tail cone shows traces of fire only near the pressure bulkhead.

Damage by fire to the fuselage above the floor level increases when moving away from the forward part of the plane. The top of the fuselage melted from the front of the first class cabin as far as the rear pressure bulkhead.

On the sides, the damage stops above the port-holes in front of the wing, but continues downwards almost to the floor level behind the wing.

In front of the wing and on the wing, the floor is intact. In front of the first class cabin, the carpet is only partially burned. On the other hand, the floor has disappeared under the closet, the access corridor for the rear main door, facing the galley, and behind the tourist class cabin. The flooring under the galley and the fuselage wall which it rests against, did not give way.

The rear pressure bulkhead melted.

The four portable oxygen tanks were found burned and empty on their rack. They had lost their valves and finishings.

This area is one of the points of maximum fire intensity.

Between the rear pressure bulkhead and the trailing edge of the wing, only the metal parts of this part of the cabin remained, with the exception, however, of what was in the galley. The containers protected the combustible products which they contained and thus made it possible to identify them.

While the effect of the fire in the rear is almost identical on the floor and on the ceiling, from the first-class cabin the influence of the fire increases when moving away from the floor. This can be better seen in the cockpit, where the influence of the heat is almost non-existent below the navigator and mechanic's panel.

### **2.12.3 Examination of the wings and rudders.**

The left wing is sheared between struts 1 and 2. However, the control cables did not give way and the extremity of the wing stayed with the main wreckage. Tanks 2 and 5 contain fuel.

The right wing burned on the level of tank 4. Tank 3 did not suffer from the fire, but was emptied as a result of damage to the wing.

Jet engine struts 1 and 2 were torn off, while struts 3 and 4 remained in place.

The leading edge flaps are extended. The trailing edge flaps are partially extended: 13 threads on the feed screw, i.e., 6° of flap.

Ailerons and spoilers were damaged only by the crash.

The tail units are in place and only slightly damaged. The control nut for the fin is at 17 threads, high position, corresponding to a setting between 0 and 1° plane nose-down.

The control cables for the horizontal and rudder stabilizer passing under the floor which burned, are in place.

### **2.12.4 Examination of the cockpit**

Other than panel P 8 (instrument panel of left-hand pilot seat) whose instruments were torn away from and pushed back onto their support, the cockpit was undamaged by the crash.

The heat in the upper part did no more than impair the breaker panels, deform the switches and obscure the instruments.

Indications concerning the general configuration of the plane are as follows:

Plane:

Landing gear control: lowered

Flap control: 14°

Flap indicator: Outer L 30° R 0°  
Inner L 43° R 27°

Air brake control: 50° (handle unjammed)

Fire-break: not pulled

Wing and nacelle de-icers: off

Stabilizer: 0°

Aileron trim: 1° to the right

Rudder trim: at neutral

Automatic pilot: off

Transponder: operating

Doppler indicator: 166 KT on both

Fin (right indicator inoperable)  
max. left.

Signs and exit lights: on

Flight recorder control: broken

Passenger oxygen: off

Crew oxygen: on

Air conditioning:

Turbocharger controls 2, 3, 4: normal

Tapping control: 1 and 3 on

2 and 4 off

Wing insulation valve control: left off

right on

Dynamic air intake control: off

Control for air conditioning units: both off

Control for thrust recovery valves: off

Control for mixture valves: both on manual

Electrical supply:

D.C.—battery on

measurement selector on primary T.R.

A.C.—all alternators dog-clutched

primary bus-bar on alternator 3

parallel control selector on alternator 3

Exciter relay switch: normal

Line relay switch: normal

Interlocking relay switch: normal

Wattmeter: minimum

Galley power supply: off

### 2.13 Medical and Pathological Information

122 bodies were found on the ground following the forced landing of the B-707 PP-VJZ on July 11, 1973 at 1500 hours in the community of SAULX-les-CHARTREUX (Essonne), or:

116 out of the 117 passengers who boarded the plane  
6 crew members out of the 17 who boarded the plane,

while the only surviving passenger and the 11 surviving crew members had to be transported to the Henri Mondor Hospital in Crêteil.

Among the latter, Mr. HELENO SALVADORE, navigator, had attempted to take cover in the forward rest rooms. He was burned externally on the face and neck, and internally over the mucous membranes of the digestive and respiratory tracts in the throat. He was taken in a coma to level III of the Henri Mondor Hospital, where he was to die on July 22, 1973, from kidney failure 11 days after the accident. The coefficient of carbon monoxide poisoning was not investigated, but the proportion of carbon monoxide in the blood amounted to 40 milliliters per liter, approximately corresponding to a coefficient of carbon monoxide poisoning of .16. In this case, then, carbon monoxide poison was not the cause of death.

Among the 122 victims found on the ground, the blood was examined on all but two of the bodies.

From the 120 other bodies:

- 16 showed a CO poisoning coefficient under .50
- 11 had a coefficient ranging between .50 and .60
- 93 had a coefficient equal or over .66.

It is usually thought that a coefficient of .66 is fatal.

Thus, out of the 120 bodies collected on the ground whose blood was examined 78% showed a carbon monoxide poisoning coefficient equal or over 66%, and death must be considered as the result of carbon monoxide poisoning.

However, 9% had a coefficient ranging between .50 and .60. For them, the probable, but not definite cause of death may be considered as being carbon monoxide poisoning.

For the 13% whose coefficient of poisoning was lower than .50, carbon monoxide poisoning cannot be excluded as the cause of death. In fact, KOHN ABREST had pointed out fatalities where the coefficient did not exceed 20%.

The analysis of escaping combustion gases from samples taken in the cabin revealed, in addition to a substantial amount of carbon dioxide, the presence of carbonic acid gas, chlorhydric acid and fluorhydric acid.

The presence of the latter two acids, in contact with the nasal and laryngeal mucous membranes, causes a reflex

characterized by respiratory failure and decrease in cardiac rhythm.

This breathing failure, a veritable reflex inhibition, is the result of a peripheral stimulation of the area innervated by the trigeminal nerve and the upper laryngeal nerve.

Therefore, death would have been caused by inhibition.

It would have been helpful to know the seats occupied by the passengers in the plane and to compare this information with the results of the blood analyses. Given the circumstances surrounding the accidents and the priority which had to be accorded to saving the lives of the survivors, it was impossible to observe the recommendations specified in Chapter 9, appendix 9 of the ICAO's manual on airplane accidents. It is not possible to determine the exact seat occupied by the victims at the time of the crash.

The results of analyses performed on the bodies of the six crew members—other than HELENO SALVADOR—who died in the accident are as follows:

1) UTERMOEL, second pilot

The coefficient of carbon monoxide poisoning was .78 and the proportion of carbon monoxide in the blood amounted to 140 milliliters. The investigation reveals, however, that he was in the rear, in the passenger cabin, next to stewardess ELVIRA STRAUSS.

2) DIEFENTHALER, mechanic

The poisoning coefficient was low: .37, and the proportion of carbon monoxide was 90 milliliters.

It is also known that he was standing in the cockpit and that he suffered a brutal shock when the plane landed, the top of his skull being torn away and causing his death.

3) MASCARENAS, Edomar, Steward

Coefficient of carbon monoxide poisoning: .48

Proportion of carbon monoxide in the blood: 100 milliliters

The inquiry did not reveal his location at the time of the crash.

4) BALBINO CARVALHO, Steward

Coefficient of carbon monoxide poisoning: .66

Proportion of carbon monoxide in the blood: 130 milliliters

The body was found in the first-class galley and removed by the firemen through the forward starboard door.

5) ELVIRA STRAUSS, Stewardess

Coefficient of carbon monoxide poisoning: .78

Proportion of carbon monoxide in the blood: 140 milliliters

The inquiry established that she was in the rear of the plane, in the tourist class cabin.

6) HANELORE DANTZBERG, chief stewardess

Coefficient of carbon monoxide poisoning: .66

Proportion of carbon monoxide in the blood: 130 milliliters.

The sole surviving passenger who, seating in the tourist section, had followed chief steward GALETTI to the cockpit, was found in the first-class galley when the plane was evacuated; his name is RICARDO TRAJANO. He suffered from burns of the respiratory tract and from tegumentary burns, especially in the lumbar region. He was taken to Professor GUENAUD's offices at the Mondor Hospital, and returned to Brazil after seven weeks of hospitalization.

The following crew members had only slight injuries causing no permanent physical damage: ALVIO BASSO, CLAUNOR BELLO, ZILMAR DA CUNHA, GALETTI JOAO, COELHO, TERSIS, PIA ANDREA.

#### 2.14 The Fire

Since this was a cabin fire, it seemed useful in this section to examine the statements of the survivors and to establish insofar as possible, a chronology of the facts based on these statements.

The discovery of the fire is well documented, since two of the stewards who were there survived the crash.

MASCARENAS (deceased) was in the rest room corridor, TERSIS (survivor) was straightening up the galley, CARMELINO (survivor) was seated on the fold-down seat near the rear passenger door.

A woman passenger exiting from the port-side rest room was heard to say, "I almost died in there". MASCARENAS and TERSIS went over to the rest room. CARMELINO got up and looked.

TERESIS saw white smoke descending from the ceiling of the rest room in the corner near the mid partition.

The two witnesses saw no flames.

TERESIS and MASCARENAS went back toward the cabin.

TERESIS cut off the power for the rear galley, while MASCARENAS grabbed the fire extinguisher which CARMELINO was carrying back with him. CARMELINO then went toward the cockpit to alert the cockpit personnel.

CLAUNOR (survivor) was seated at the mechanic's position. He confirms that CARMELINO came in to say that there was smoke in the rear rest rooms and that they should go look.

CARMELINO returns toward the rear with DIEFENTHALER (deceased), the second mechanic. It is probable that after MASCARENAS emptied his extinguisher he entered the cockpit, since GALETTI (survivor) points out that he was informed of the incident by MASCARENAS who was holding an empty extinguisher in his hand.

GALETTI and MASCARENAS joined DIEFENTHALER and CARMELINO in the rear. At that time, the smoke did not allow access to the rest rooms.

It appears that DIEFENTHALER was the first to return to the cockpit to get a mask and a tank of oxygen.

During this time, the smoke continued to advance: it entered the tourist cabin. The stewards and chief steward tried to reassure and calm the passengers.

GALETTI returned to the cockpit and warned of the seriousness of what was happening. All survivors from the cockpit except CLAUNOR state that they learned of the incident from GALETTI. It appears likely that the first announcement made over the frequency corresponds to GALETTI's intervention. According to the sequence of events given by almost all witnesses, it was at this time that the rest room circuits were broken. CLAUNOR says

that one of the circuit-breakers was already pulled out. He re-engaged it only to have it pop out immediately after.

Stewardess ANDREA (survivor) who was re-applying her makeup in one of the forward rest rooms, exited after the lights went out. She then saw CARMELINO wearing an oxygen mask. We know from CARMELINO that DIEFENTHALER helped him put on his safety harness so that he could go and open the tourist cabin wing emergency exits. (In order for DIEFENTHALER to have suggested this, it is certain that the plane was depressurized).

At the same time, ANDREA saw that the smoke was starting to penetrate the first-class cabin.

Statements from witnesses reveal that the smoke, which progressively invaded the rear of the plane from the rest rooms to the last rows of seats was white.

The smoke front appears to have advanced regularly, turning black. The statements from witnesses tend to reveal that the black smoke appeared on the cabin ceiling almost simultaneously in the tourist and first-class cabins and that it advanced not only horizontally but also in the direction of the floor.

GALETTI returned to the cockpit; he described the rapid and catastrophic development of the situation. This announcement by GALETTI presumably preceded the message from the crew of "total fire on board".

It was approximately at this time that CARMELINO returned to the tourist cabin. Despite his mask he advanced with difficulty, since visibility was zero. He saw three flashes occurring in the back of the plane. The blast threw him onto the floor. He returned toward the front.

General agreement among the survivors reveals that it was on the second entry of GALETTI that the smoke could be seen in the cockpit. An emergency descent was made while, according to CLAUNOR and FUZIMOTO (survivor) the plane was depressurized. The crew put on masks and goggles.

It was apparently at that time that DIEFENTHALER cut off alternators 1, 2 and 4.

The smoke rapidly became thicker in the cockpit. The pilots state that they opened the side windows when it became difficult to see the instrument panel and that they made the decision to "crash land" the plane shortly thereafter.

It would not appear, according to witnesses, that opening the side windows improved visibility in the cockpit. The pilots landed the plane using VFR, with their heads out the window.

At the time of the crash, there were nine people in the cockpit:

- FUZIMOTO, in the left pilot-seat
- GILBERTO, in the right pilot-seat
- ALVIO, in the observation seat
- ZILMAR, in the navigator seat
- CLAUNOR, in the mechanic's seat
- DIEFENTHALER, standing behind CLAUNOR
- ANDREA and GALETTI, in the middle of the cockpit
- CARMELINO, against the cockpit door.

When the plane came to a halt, the fire was contained in the fuselage. According to one of the witnesses on the ground, a few minutes after the plane stopped, there were flames under the fuselage, fully behind the port side, enveloping the skin on the outside. There were no flames visible on the top.

The roof was pierced first to the right of the base of the fin. The explosion of tank 3 seems to have occurred at this time.

A ground witness who is an Air France B-707 steward arrived on the scene and described the incident as follows: The inside of the plane slightly behind the wings was on fire. This was not a violent fire but rather a silent combustion. The smoke was extremely thick. The rear part of the roof was already destroyed. The fire advanced slowly forward without, however, increasing in force.

The first fire engines arrived on the scene at 14:11 UT, 6 to 7 minutes following the crash. The fire was completely extinguished at 14:50. It broke out again in the luggage compartment, but was quickly brought under control.

### 2.15 Survival

The forced landing was fully successful. It was possible to survive the accident from the standpoint of accelerations undergone when the plane travelled along the ground. Only second mechanic DIEFENTHALER was fatally injured

when the plane crashed, since he was standing, unsupported and unharnessed.

It is, however, noteworthy that except for the occupants of the cockpit and two members of the cabin personnel who found themselves under special conditions (TERESIS and COELHO), no one was able to escape from the plane on his own, even though all exits remained completely utilizable.

Of the nine persons who were in the cockpit, five had oxygen masks. Although tests proved that the opening of the side windows caused smoke inhalation, it also caused turbulence which was beneficial to those who had no mask.

TERESIS, seated near the forward passenger door, protected his face with a damp cloth. COELHO, seated near the forward galley door, used the portable breathing apparatus left behind by CARMELINO and which he had found when freeing the access to the galley door.

In the cabin, no exit had been opened. Voluntarily, in the absence of any instructions, the oxygen masks had not been released.

The condition of the occupants of the cabin when the plane came to a halt can be evaluated with the aid of several statements by witnesses. Among those persons carried off by the firemen, i.e., those who suffered from the effects of the smoke eight to ten minutes more than the first, it was possible to revive two out of three. Only one of them, however, survived.

In the forward area, where damage caused by smoke was slightest, there are no apparent signs of attempts to escape.

Those crew members (HELENO, BALBINO) who were near the doors used by TERSIS and COELHO and who were quite familiar with the layout of the plane, were unable to exit.

It is therefore quite probable that the occupants of the cabin were quickly powerless to react and that they were unconscious at the time of the crash. It is likely that most victims died only after the plane had come to a halt.

## 2.16. Expert Evaluations

### 2.16.1 *Examination of the air outlet openings of the fuselage*

The ventilating air escapes through five openings:

—two permanent outlets, one forward and the other aft, which drain off fumes from the galleys and rest room odors. They are equipped with a venturi for limiting the flow rate when the differential pressure is high.

—two outlets coming from the discharge control valves which regulate pressure

—one cooling air discharge opening from the radio installations.

The Board has made the following observations:

a) A substantial track caused by smoke and which rapidly corroded, can be seen at the exit of the rear permanent outlet. An analysis of the corrosion in this trail showed that the metal had been attacked by chlorhydric acid.

The inlet and the venturi were immediately taken for an analysis of combustion deposits. These units were useful in that they had not been handled by the life savers or contaminated by the extinguisher products.

b) There is a slight trail of soot behind the forward permanent outlet with a mean axis which is not parallel to the fuselage but which corresponds to a fuselage angle of about 5°.

c) There are considerable traces of smoke around the rear discharge valve outlet.

d) There were no traces of smoke around the forward discharge valve outlet.

e) The same holds true for the most part for the cooling air outlet from the —(illegible)—

#### **2.16.2 Examination of the rear rest rooms**

There are three rest rooms in the rear of the plane. Rest room C on the starboard side and rest room D on the port side are symmetrical and back to back with the rear pressure dome. Rest room E is located on the starboard side between rest room C and the galley.

Rest rooms C and D are part of the standard arrangement in a cargo version. They can only be dismantled part by part: sink, toilet, wall panels. On the other hand, rest

room E is designed for easy removal in cargo utilization. It consists of one unit which can be easily moved and hooked up.

The three rest rooms were found in identical condition. Doors, partitions, panels have disappeared. Only the metal elements remained; tank, toilet motor and bowl, sink, filter, electrical wires. The floor of the plane under rest room E, as well as the under skin of the fuselage next to this rest room were less damaged here than elsewhere.

All that remains of the pressure dome is a rim about 30 cm wide. The sealant where the dome and fuselage join is blistered and burnt over its entire length except under the floor. The two brackets and the upper reinforcing cross-beam in the plane of the dome and fuselage joint were melted.

The fuselage skin disappeared symmetrically in the upper part.

On the sides, the effect of the fire is much less symmetrical.

On the starboard side, the skin was heated evenly over the entire width of rest room C from a height of approximately 50 cm above the floor. The metal became soft and broke under the weight of the tail unit between the two ring-frames before the dome, i.e., near the toilet bowl of rest room C (station 1415).

On the port side, the effect of the fire on the skin of the plane begins clearly lower and more toward the front—almost at the limit of the closet and rest room D, slightly below the level of the floor. On this side, the weight of the tail unit not only caused, in the upper part, a vertical rip which continued until just beyond the passenger door (station 1390) but also singed the lower part of the skin.

On the port side the floor is perforated. Here are found, among considerable melted alloys, the oxygen tanks, unexploded, but finishings destroyed.

The shape of the tears shows that the fire reached its maximum intensity only after the plane had come to a halt.

#### **2.16.3 Examination of the rear galley**

This galley consists of three portable units, as was rest room E. Units 3 and 4 are installed on the starboard side on

either side of the rear service door. Facing them, on the port side, between the passenger door and the tourist-class cabin, is unit 5.

Units 3 and 4 withstood the fire rather well. Damage is external. Anything in a drawer, a container or an oven was only slightly damaged. The wastepaper basket in unit 4 was lost but its position would cause it to escape from its housing during considerable deceleration of the plane. The newspapers which were piled up in unit 4 burned only superficially. The electrical circuits of these two units were destroyed. No evidence of a short circuit was revealed on the conductors, but their condition is such that no formal conclusion can be drawn.

Unit 5 no longer exists. This unit is basically a storage area. It has no cooking equipment. It is not supplied by electricity. In its upper part 60 woolen blankets are usually stored.

The floor on the starboard side under units 3 and 4 fully withstood the fire. On the port side, under unit 5, it disappeared. In front of this area, i.e., in the rear of the tourist cabin, the floor melted over its entire width.

The fuselage walls resisted half way up the sides of the cabin. Nothing remains of the top of the fuselage, the ceiling and the lifesaving equipment (rafts) which are normally stored over the access corridor to the tourist cabin.

#### **2.16.4 Examination of the cabin**

##### **a) Galley, forward rest room, crew compartment**

Damage by the fire involves only the upper third of this space. The top of the fuselage is intact. The false ceiling disappeared but the partitioning withstood. The rest rooms suffered little from the fire.

In the crew compartment, the foam mattresses were only partially burnt. The furniture in the galley was more heated than burnt. The passenger and service doors operate normally. The extinguisher (water) placed near the passenger door is intact, but the CO<sub>2</sub> cartridge, swollen by the heat, is empty.

##### **b) First class cabin**

The collapse of the top of the fuselage begins with the first class cabin. Nothing remains of the arch above the line of port holes beginning with the first rows of seats and con-

tinuing towards the rear. Laterally, the inner skin remains in part. The air conditioning pipes are visible. The seats are in place, and undeformed. Only the backs of the seats burned completely. The carpet shows localized burns. The partition separating first class from tourist has disappeared.

c) Tourist class cabin

Over the wing the seats are completely burnt, but the floor covering withstood. The inner wall coverings are totally gone beyond the last wing exits. Over the landing gear wells, the floor is intact. It sinks and then disappears over the rear hold. Its destruction is not symmetrical. On the port side, it is almost entirely destroyed over the entire length of the hold. On the starboard side, its destruction is practically limited to the space included between the two hold doors. Similarly, the side wall withstood the fire better on the starboard side than on the port side. It should be noted that this port-side zone was used by the firemen to gain access to the plane.

Nothing remains of the rear part of the tourist cabin, the debris from which fell into the baggage hold.

*2.16.5 Examination of the rear baggage hold*

The rear baggage hold extends from the main landing gear wells to the axis of the rear galley door. This hold has two doors on the starboard side. On either side of the second door are found the oxygen reserve of the normal cabin circuit and in the rear, the water reserve for the rest rooms and the rear galley.

The structure of this hold is that part of the plane most damaged from the skidding of the plane over the ground. Neither the keel nor the bottom of the hull gave way, but both were misshapen. The skin was torn along a generating line on the port side of the hold and in the rear.

The condition of one of the edges of the opening shows that the fire had not yet reached this area at the time of the crash.

All passenger luggage had been placed in this hold. Most of this luggage was only partially burnt. Damage caused by the fire is distinctly more substantial in the rear than in the front, and for each of these two sectors, front and rear,

damage is greater when moving away from the floor of the hold. When this hold was cleaned out no major, localized source of heat was noted which would have allowed the possibility of luggage combustion.

The most calcinated area is at the level of the oxygen tanks (three 3,200 liter tanks—pressure 120 bars). These tanks emptied themselves but did not explode. The crash did not tear them from their support, but it is probable that the damage to the oxygen pipes is the result of deformations caused by the impact, although it may be that the damage resulted from the heat of the fire or the intervention of the rescuers.

This would explain the fact that the oxygen ejected through the overpressure valves was not directed outwards, as is normally the case, but spread through the hold. This would explain the intense burning in this area and in particular the melting of the cabin floor above this zone.

The pressure safety valve located in front of this hold was recovered in good condition. The rear flow valve of the pressure system was also recovered in good condition. This valve is located outside the hold in the compartment which is unused because it is too low. This compartment extends the rear hold as far as the rear pressure dome. This space contains only the air conditioning pipes of the rest room zone, the water and drain pipes and the tail unit control cables. It has no direct access to the outside. The only possible access is gained by dismantling the partition in the back of the baggage hold. This partition is not impermeable so that proper pressurization of the hold can be maintained. The only electrical supply in this space involve the de-icing of the water pipes and the operation of the flow regulating and thrust recovery valves.

This compartment was damaged by the fire only to the right of the perforations of the upper floor.

In summary, the observations made in the rear hold and in the compartment next to it appear to eliminate the possibility that the fire started there.

#### **2.16.6 Examination of the forward holds**

The forward baggage hold is situated between the electronic hold and the air conditioning compartment.

Neither the heat nor the impact damaged these three spaces. A slight coating of soot can be seen in the baggage hold, which contained only the suitcases of the crew and some flight supplies.

The three oxygen tanks of the cockpit circuit are intact but empty. The finishings and the oxygen distributing harness are also intact.

The plane's battery was not destroyed in the crash.

The air-conditioning units situated under the fuselage, behind the forward hold were partially torn away when the plane skidded along the ground.

#### **2.16.7 Examination of the electrical circuits**

##### a) Main supply

Examination of the mechanic's console reveals that the primary bus-tar was connected to alternator 3.

The surviving mechanic states that his co-worker turned off alternators 1, 2 and 4 shortly before the crash.

The main relays were removed and evaluated. The following positions were found:

		Excitation relay (GCR)			
No.	Control Panel	ZJ 31 97	OL 3552	XM 4356	UM 4311
GCR		off	on	off	off
Circuit breaker		engaged	engaged	engaged	engaged
		Line relay (GB)			
Number		11.662	11.668	11.641	19.617
GB		off	off	off	off
		Coupling relay (BTB)			
Number		23.401	ML 19.249	ML 27.983	ML 27.986
BTB		on	on	on	on

All of these units were verified as to their operation. They were all found to be in operating condition with the minimum required performances.

The switching off of the circuit breaker of Control Panel 4 is not significant. This circuit-breaker protects the bypass circuit of the excitation relay and is only involved in the start-up of the plane without voltage.

The positions found on the main relays suggest the following hypothesis. During descent, the crew switched off the line relays. The switching off of excitation relays no. 1, no. 3 and no. 4 is merely the consequence of the action of the auto-

matic protection devices following the damage suffered by the primary power supply upon impact.

b) Distribution circuits

A major portion of these circuits passes through the ceiling of the forward hold, an area which was not touched by the fire. Examination of the conductors showed no damage.

c) Rear rest-room circuits

Seven circuits involve the rear rest-rooms:

1) *Signals*—This circuit illuminates a flashing light in each rest room when the signs "Fasten your seat belts" are operating. The light is located in the backing of the sink. This circuit is protected by circuit-breaker 77 in panel P. 6.

The mechanic pointed out that the electric circuits of the rear rest rooms were broken, one by one, from the circuit-breaker panels, one of the circuit-breakers from the last row of panel P. 6 was already switched off. He re-engaged it but it switched off again.

After the mechanic examined the wreckage, he certified that the circuit breaker in question was one of the following:

75 NO SMOKING	off
76 NO SMOKING	off
77 RETURN TO SEAT	off
78 SEAT BELT	on
79 SEAT BELT	off
80 LAVATORY DOME LIGHT	off

He cannot positively identify the circuit-breaker which had switched itself off, but believes it to be number 77, RETURN TO SEAT.

2) *De-icing of water pipes*—This is a heating coil which surrounds the water pipes and a resistor which de-ices the drain pipe. The latter circuit is protected by circuit-breakers 4 and 33 in P1. The heating coil is supplied by the toilet-flushing circuit by a fuse and a thermo-switch.

The pipes are located in the empty compartment under the rest-rooms and which was only slightly damaged by the fire. It is improbable that a short-circuit in this area started the fire.

3) *Rest room light*—This circuit, signalling that the rest-rooms are occupied, is almost entirely outside the rest rooms themselves. It is protected by circuit-breaker 40 in

P.7. Damage to it was so severe that no valid observation could be made.

4) *Razor power supply*—This circuit supplies the razor outlet situated on the back of the sink. It is protected by circuit-breakers 14 in P.1 and 45 in P.5. The converter (one for the three rest-rooms) is also protected by fuses. Damage was so great that no valid observation could be made.

5) *Rest room lighting*—These circuits are protected by circuit-breakers 19 and 22 in P.4 and 80 in P.6. The degree of damage did not allow any valid conclusions to be drawn.

6) *Flushing of toilets*—This circuit supplies one pump per toilet which flushes the bowl. It also supplies the re-heating of the drain pipes. It is protected by circuit-breaker 25 in P.4. This circuit was also severely damaged by the fire.

7) *Water heater*—This circuit is the most critical, on the one hand because of the power installed and on the other, because of the position of the water-heaters which are placed in the space used as a receptacle for used paper towels. The three water-heaters of the rear rest-rooms are supplied by 115 triphase V. This circuit is protected by circuit-breakers 7, 8 and 9 in P.3. Two phases supply the heating resistors (400 W). The third controls the heating relay by means of a thermostat. In addition to this thermostat which is released at 52°, two overheat thermostats in series with the heating rods, cut off the power when the temperature reaches 71°.

An exhaustive study of the incidents involving the water-heaters had been undertaken with the collaboration of the Air France Company. The results of this study produced no conclusive facts until January, 1974, when two serious incidents occurred.

In the first incident (F-BHSI-January 5, 1974), a passenger noted that there was smoke in the rear lavatory. Visual inspection revealed that the feed wires of the water-heater had burned and melted in the coupler. The feed wires had fallen into the used paper towels.

Upon dismantling, the heating coil was found to be burnt along a generating line.

In the second case (F-BHSP-January 18, 1974) a steward pointed out that there was no more hot water in the rear rest room. Once again, the feed wires were found to be broken. The insulating part of the connector which contains the two coupler plugs was burnt had been ejected from the metal body of the coupler. The feed wires had fallen into the used paper towels.

The two heating rods have the following points in common:

- corroded areas appear on the metal casing of the rods;
- the rods became swollen;
- one of the coupler pins was melted.

However, it was noted that in the first case the neoprene joint between the heating rod and the coupler was swollen outwards while in the second case, the joint was in place, but the insulating assembly of the coupler was ejected.

The analysis of the heating rods in question, conducted at the "Centre d'Essais des Propulseurs", as well as those which had shown low insulating resistance during the inspection campaign, made it possible to determine how the breakdown occurred.

When the casing is perforated by corrosion, water absorbs the magnesium in which the resistor is embedded. Under the influence of successive heatings, the water travels toward the chamber at the base of the rod. The accumulation of water in this chamber then causes a short-circuit between the extremities of the resistor and the base of the casing. This short-circuit heats and burns the coupler. The steam pressure in the chamber can be sufficient to eject the coupler.

The water-heaters of the PP-VJZ were evaluated in the light of these observations. The internal coloring of the water-heaters shows that they withstood a temperature over 600°. With the exception of one of the heating rods of the right front water-heater, all of the current supply sockets disappeared.

Oxidation of the water-heaters and the rods appears to be due solely to the effect of the fire.

The resistor casings are intact and the electrical elements in good condition.

The insulating defect of the rods of the rear water-heater is due to deposits originating from the combustion of the insulators of the wires which connect to the sockets.

Briefly, there is nothing to indicate that the water-heaters were the origin of the fire.

The electric water-supply control circuit is located outside the rest rooms and was not taken into consideration.

#### **2.16.8 Examination of the air-conditioning circuits**

The principal elements of the air-conditioning circuits in the fuselage were removed for evaluation.

Following are the main observations noted upon dismantling:

1. The internal condition of the circuits excludes the possibility of overheating or escape of smoke from this system.

2. The insulating valve of the right wing is closed, that of the left wing is open. This confirms the indications of the mechanic's panel. The only possible sources then are turbocharger no. 2 and taps 1 and 2. The mechanic's panel provides no certainty as to the functioning of turbocharger no. 2, but indicates that tap no. 1 was in service and that tap no. 2 was cut off. It may be noted that the operations carried out by the crew correspond precisely with the emergency procedure for smoke originating from the air-conditioning system.

3. The thrust recovery valves are closed. The automatic radio ventilation valve is open. These positions correspond to normal, automatic operation when the differential pressure becomes low.

#### **2.17 Additional Information**

##### **2.17.1 VARIG instructions in case of fire**

Chapter I of the VARIG Company's emergency procedures (January 1972 edition) covers smoke and fire problems.

—Paragraph 1.1 deals with engine fires.

—Paragraph 1.2 concerns fires and smoke of electrical origin.

In the latter case, the procedure is divided into three phases:

*Phase I*

1. Put on masks and goggles (crew)
2. Open oxygen to 100% (crew)
3. Connect the intercom
4. Turn on white lighting
5. Compensate the plane for manual control
6. Open all line relays and coupling relays.

If the smoke persists:

*Phase II*

7. Close all line relays
8. Transfer power supply of left horizon
9. Place primary bus-bar selector on park

If the smoke persists:

10. Open the battery switch
11. Open circuit-breaker of bus-bar 28 volts D.C.
12. Open circuit-breaker of primary rectifying transformer
13. Open circuit-breaker of ampli-intercom
14. Re-activate bus-bar

—Paragraph 1.2 concerns the emission of smoke through the air-conditioning system.

The initial part of the procedure is aimed at locating the source and halting the escape of smoke. The second part deals with the evacuation of the smoke.

*Phase I*

1. Put on masks and goggles (crew)
2. Open oxygen to 100% (crew)
3. Connect the intercom
4. Close thrust-recovery valves
5. Turn off individual air vent
6. Activate turbocharger no. 2 or taps 1 and 2
7. Close right wing insulating valve

If the smoke persists:

8. Open right wing insulating valve
9. Activate turbochargers 3 and 4 or taps 3 and 4
10. Close left wing insulating valve

If the smoke persists:

11. Close the left air-conditioning unit

If the smoke persists:

12. Open left air-conditioning unit
13. Close right air-conditioning unit

If the smoke persists

Descend to an altitude which is compatible with the safety and performance of the plane. Follow the procedures for non-pressurized flight.

### *Phase II*

#### a) Pressurized flight

Evacuation of smoke during pressurized flight is normally achieved with the usual ventilation. In cases of substantial quantities of smoke, the following procedure supplies maximum ventilation.

1. Put on masks and goggles (crew)
2. Open oxygen to 100% (crew)
3. Connect intercom
4. Increase cabin altitude (10,000 feet)
5. Activate maximum turbochargers and taps

Do not exceed an overpressure gain of 20 inches of water

Do not depressurize.

#### b) Non-pressurized flight

Smoke evacuation is better during pressurized flight.

Use the following procedure only during non-pressurized flight:

1. Put on masks and goggles (crew)
2. Open oxygen to 100% (crew)
3. Connect intercom
4. Find holding speed
5. Open co-pilot window.

Paragraph 1.4 deals with landing-gear fires

Paragraph 1.5 concerns cargo hold fires.

2.17.2 Numerous analyses, evaluations and verifications were performed. Among the most important requested by the Board of Inquiry are the following:

- the evaluation performed by Colonel DUSCH of the Paris Fire Department concerning the origins and spreading of the fire in the PP-VJZ;
- the studies of escaping smoke undertaken by the Toulouse Aeronautical Test Center;
- the research carried out by various airline companies, in particular AIR INTER and UNITED AIRLINES, and by the BOEING Company concerning the problems of smoke evacuation.

### 3. ANALYSIS OF THE FACTS

#### 3.1 Locating The Origin Of The Fire

3.1.1 The examination of the wreckage reveals that the zone where the fire initially broke out and developed is the portion of pressurized cabin located over the cabin floor and behind the tourist-class galley, i.e., in the space occupied by the 3 rear rest rooms, the closet and the central corridor giving access to them.

This examination, confirmed by other observations made, makes it possible to eliminate the hypothesis of a hold fire.

Similarly, the hypothesis of a fire originally fed by the fuel or hydraulic fluid was deemed unlikely due to the location of these circuits and verifications made after the accident.

3.1.2 Although witnesses directed research operations on the rest rooms themselves, the possibility of a fire in the space between the ceiling of the habitable sector of the above-defined critical zone and the fuselage was not eliminated.

Several electric cable systems pass through this space, parallel to the plane's axis and on either side of the symmetrical plane. The only cables carrying considerable power are those which supply the electric motors of the horizontal stabilizer.

The servo-trim motor, which revolves permanently when automatic pilot is functioning, absorbs three amperes per phase under 115 volts.

The motor of the manually-controlled trim absorbs 15 amperes per phase under 115 volts when the pilot activates

the control-stick switches. This motor is used intermittently and for a few seconds at a time.

The pilots found no irregularity in the depth compensation during the initial descent.

In addition, no prior incident of short-circuiting on these cable sysems was found for this type of plane.

Moreover, considering the distance of these cables from combustible elements which could have started the fire, and considering the fact that the characteristic odor of heated electrical insulators was not noted, the Board feels that it is very unlikely that the fire originated in the false ceiling of the rear zone of the cabin.

3.1.3 As concerns the discovery of the smoke, precise and concordant statements from two eye witnesses are available, Messrs. CARMELINO and TERSIS.

When their attention was drawn to the port-side rest room, no flames were visible. The smoke occupied at most the upper third of the rest room. It did not appear to be issuing from any fixed place. The restroom continued to be invaded by the smoke without locating its source.

Two hypotheses may be made:

—the fire started in the port rest room.

—the fire started in the adjacent space. It developed unknown to the occupants. It was detected only when the smoke had penetrated into the port-side lavatory. This adjoins both the closet and the end starboard lavatory, symmetrical to the port lavatory.

The closet consists of two partitions perpendicular to the plane's axis, against the side of the port fuselage. A simple curtain is all that separates it from the center aisle. It has an air inlet halfway up the wall of the fuselage. Re-ventilation occurs through the passenger cabin. Any escape of smoke in the closet, therefore, would only be evident in the cabin and not in the rest room next-door.

It can be deduced that the fire did not start in the closet, but in one of the two latoratories located in the extreme rear.

### 3.2 Study Of The Risks Of Fire And The Conditions For A Fire Developing In The Extreme Rear Lavoratories.

3.2.1 Since the layout of the rear lavatories is identical, the study of the possibilities of a fire is equally valid for either one.

The rest-rooms are not equipped with combustible materials. American regulations establish conditions to be met so that a fire cannot be caused easily, but there is no requirement regarding emissions of smoke.

The manufacturer states that these materials comply with standard CAR 4B-381 in effect when the plane was placed in service.

However, a flame test carried out on the flap of a waste-elimination trap door recovered from one of the forward lavatories which was little damaged by the fire, showed that this element was easily inflammable.

However, the fixtures do not constitute the greatest source of risk. The risk is present in the large quantity of paper in the form of hand-towels, napkins, seat-covers, etc.

There are three main stores of paper in the rear lavatories:

a) the cupboard located against the rear pressure bulkhead. No electric circuit passes through this space. It consists of an iron case the front of which can be lowered. This front surface is pierced by a slot, forming a distributor of seat-covers.

This cupboard is separated from the toilet by a space which is usually empty.

b) the towel-distributor, located over the sink, on the wall of the fuselage, midway in height between the sink and the lavatory ceiling. No electric circuit passes through it. It consists of a plastic, bulging drop-leaf. The drop-leaf has several openings for the distribution of various products.

c) the sink, the inside of which serves for the disposal of wastepaper. The sink unit is a coffer made partially of sheet metal and partially of wood. The rear surface, resting against the fuselage wall, is made of sheet metal. It has openings through which pass the electric cables for the toilet, the air supply of the individual blower and for the elimination of water.

This rear surface is covered by a piece of sheet metal attached to the fuselage couplings, assuring the continuity of the inner covering of the fuselage in the lavatories.

The side and top surfaces are made of agglomerated wood. The front surface is made of plastic-covered wood.

The sink itself, the bowl and its back are made of a shaped sheet of stainless steel.

A perforated center partition divides the sink unit into two compartments.

Under the sink bowl there is the electrical box, an electrical control box and a water-heater protected by sheet metal.

This space is also the receptacle for used papers. These are normally thrown through a trap located over the back of the sink and accumulated under the sink. There is no wastepaper basket strictly speaking, probably because of the pipes and cables which pass through this area. There is only a bin, 5 cm high, protecting the lower part of this compartment.

The compartment next to it is occupied by metal drawers used as receptacles for paper bags. These drawers are filled through traps located on the front surface of the sink unit, and are removed through the other compartment.

There is no electrical installation in this second part of the sink unit. It should be noted that this second part does not extend as far as the pressure bulkhead.

The presence of reinforcing corner plates, to the right of the coupling of the rear dome, creates a horseshoe-shaped space common to both rear lavatories and which is unusable. This space extends from the floor of the port lavatory to the floor of the starboard lavatory, passing through the ceiling of both lavatories.

This space is separated from the lavatories by a light plastic-covered wooden fixture. The cables previously mentioned pass through the ceiling on their way to the tail cone. Laterally, the only piece of equipment is the loud-speaker for passenger announcements.

The partition dividing the sink unit and this space is perforated with a hole approximately 15 cm in diameter.

3.2.2 The risks of fire are increased by the fact that easily ignitable materials exist near a possible hot point.

The focal points of heat considered are either electrical in origin or the result of a human failing, such as carelessly throwing away a lighted cigarette butt.

Prior known incidents of electrical origin on the B-707, other than the problem of the heating rods which became known after the accident, involve the following points:

- Power supply for the razor
- Power supply for the fluorescent lighting of the mirror
- Power supply for the toilet flushing motor.

Except for the cabling of the razor socket, these circuits are not near easily inflammable items.

Examination of the location of combustible items reveals that the three storage areas for paper show different risks of fire.

It would appear difficult for the two paper distributors to become ignited electrically.

In addition, it is easy to throw a cigarette butt into the distributor located over the sink [sic], but much more difficult to do so in the distributor located over the toilets.

Moreover, the piling up of papers in the distributors does not facilitate combustion.

On the other hand, in the area used to throw soiled papers, all of the conditions are present for a cigarette butt or electrical incident to trigger a fire, the seriousness of which depends on the volume of papers accumulated therein.

In this particular accident, involving a long flight (11 hours) with almost total occupancy of the tourist class section (97 passengers out of 109 available seats), it can rightly be supposed that the space used to dispose of papers was full.

This long voyage also allows the possibility that many of the used paper towels had had time to dry. The air, which is normally extremely dry during flight, is heated inside the sink unit by the heat losses of the water-heater.

Investigations following the accident of the PP-VJZ revealed that space used for disposing of papers often contained cigarette butts. This would seem to indicate that the

ashtray placed on the front surface of the sink unit was not adequately visible.

In summary, the risk of fire has been established as follows:

- Distributor over toilet: low risk
- Distributor over sink: average risk linked with passenger carelessness
- Trash-disposal space: high risk, both in the eventuality of passenger carelessness as well as in the eventuality of an electrical incident.

3.2.3 During pressurized flight, the air circulates in the lavatory as follows: the air arrives partly from the individual vent, in part from the ceiling, in part from the center aisle. It is evacuated from a collector located on the level of the toilet seat and eliminated directly to the exterior.

If fire breaks out in one of the distributors, not only would their structure prevent the smoke from escaping elsewhere than in the lavatory, but the forced ventilation could only bring the smoke back.

It should be pointed out that the forced ventilation did not contribute to the propagation of the fire in its initial stage.

The fire in the sink unit has different characteristics. The volume of air in the unit and the wrinkling of the paper favor an extremely rapid development of the fire. This could develop in three different directions:

- upwards toward the trash-disposal trap
- laterally, toward the case containing the loud-speaker
- downwards if the sink's plastic drain pipe (depressurized) is perforated.

It should also be noted that the flexible piping connecting the individual vent to its supply piping is made of flexible rubber. It could rapidly deteriorate and create a current of air directly on the source of the fire.

### 3.3 Discussion And Hypotheses Retained

#### 3.3.1 First hypothesis: Fire in the port lavatory.

The fact that the passenger was leaving the port lavatory indicates that the smoke had just begun to escape, otherwise she would not have entered the lavatory.

If the fire originated in this lavatory, this would signify that it had just started.

It is difficult to imagine that if the source of smoke originated from one of the distributors, it could not have been located and that no flames were quickly seen.

It is more likely that the smoke originated from a fire in the sink unit. The supposed short-circuit of the "Return to seat" circuit would corroborate this hypothesis (see page 29).

One of the few objective indications consists of the stoppage of the recorder the supply of which passes through the ceiling of the starboard lavatory, then in the unused space common to both lavatories and located over the toilets.

In order for this electric circuit to be cut off by fire in the port lavatory—which occurred almost at the same time the crew was signalling to ATC that there was a fire aboard—the fire had to advance very rapidly in the unused space and damage the cabling.

This appears doubtful, since there is little combustible material in this area, and the draft is limited as long as the case's fixture is still in place.

### 3.3.2 Fire in the starboard lavatory.

The survivors indicated that the door of the starboard lavatory was closed when the smoke was discovered, and that no one opened this door thereafter.

It is certain that during pressurized flight and provided that not too much smoke escapes, no odor, and therefore no smoke would be detectable in the cabin if fire broke out in a closed lavatory.

The time factor, which is especially troublesome in the hypothesis of fire in the port lavatory, is no longer a problem in the hypothesis of a fire in the starboard lavatory.

The examination of the partitions of this forward lavatory, which are of the same type, shows that they resist fire well.

It is therefore possible that, when the smoke filtered into the port lavatory, the development of the fire on the starboard side was substantial. The ceiling of this lavatory is not highly resistant to fire. It can be thought that the fire

was already developing in the false ceiling, and this better explains why the recorder stopped.

The fact that there was little escape of heat in the port lavatory favors this hypothesis.

The violent invasion of smoke in the center aisle between the lavatories corresponds to the breakage of the vent shafts supplying the ceiling vent for this aisle.

The advance of the fire toward the front can be explained by the presence of lifesaving equipment above the galley area, and by the nature of the cabin ceiling, made of moulded plastic.

Although the hypothesis of a fire originating in the port lavatory cannot be definitively excluded, it is more probable that the fire started and developed in the rear starboard lavatory, most likely in the sink unit.

### 3.4 Action Taken By The Crew

Mechanic DIEFENTHALER, who was not on duty at the time the smoke was discovered, played an important role in the fire fighting effort undertaken by the cabin personnel as well as the cockpit personnel in an attempt to prevent further development of the fire.

Although the cabin personnel intervened quickly with fire extinguishers, their efforts were to no avail, since the source of the fire was never located.

The hypothesis of a fire originating from an electrical incident was plausible. The cutting off of all rest room circuits and the generation of non-essential power were logical steps to take.

Increasing the altitude of the cabin is the recommended method for accelerating the evacuation of smoke. This was done.

Despite this, the smoke continued to advance. This progression, which was uneven in the cabin, led naturally to the suspicion that there was a problem originating in the air-conditioning system. Examination of the wreckage shows that the emergency procedure for smoke emission from the air-conditioning system had been begun.

The rapid development of events led the cockpit personnel to apply successively and partially, procedures relating

to various hypothesis and which were thereby not totally consistent. When this fact is considered, it may be seen that the actions of the crew were well-founded.

The crew's decision not to place the passengers' oxygen harnesses in service was the object of a special examination. Beside the fact that these harnesses lead into the rest rooms, their flow rate could have worsened the situation. The use of the masks would not have protected the passengers from smoke poisoning, since these masks discharge a mixture of pure oxygen and ambient air. The emergency instructions, then, justifiably do not provide for the use of oxygen in the case of smoke.

In addition, the tests performed by Boeing showed that opening the side windows did not improve the situation in the cockpit for a case of smoke originating in the fuselage. It was recognized, however, that when these windows were opened, the smoke was so thick in the cockpit that the instruments were no longer visible. Opening the windows allowed visual piloting, making the forced landing possible.

### 3.5 Medical Observations

Coefficients of carbon monoxide poisoning equal to or higher than 66% are sufficient in themselves to explain the death of 78% of the victims.

Coefficients ranging between 50 and 60% constitute possible, but not certain cause of death of 9% of the victims.

Lastly, in 13% of the cases, a coefficient under 50% does not make it possible to attribute death to carbon monoxide poisoning.

The probable cause of death in these cases is an inhibiting reflex to fluorhydric and chlorhydric acids.

The especially high rate of poisoning is noteworthy for those victims known to have been seated in the rear, in the passenger cabin. Mrs. Elvira STRAUSS and Mr. UTERMOEHL both had coefficients of carbon monoxide poisoning of .78 and a proportion of carbon monoxide in the blood of 140 milliliters per liter.

On the other hand, the coefficient of poisoning in the blood of Mr. DIEFENTHALER, whose death in the cock-

pit was inevitably instantaneous, was .37, with a proportion of carbon monoxide in the blood of 90 milliliters.

It was an intermediate coefficient, but one that was sufficiently high to cause death that was noted in the case of BALBINO, whose body was found in the first class galley, and who was perhaps still breathing after the crash (.66 and 130 milliliters of carbon monoxide).

It should be emphasized that the affinity of hemoglobin for carbon monoxide is much greater than for oxygen. Thus, hemoglobin in the presence of a gaseous mixture including 220 volumes of oxygen and 1 volume of carbon monoxide will fix half of each of these gases. When the gaseous mixture has saturated the hemoglobin, we find equal quantities of carboxyhemoglobin and oxyhemoglobin.

The presence of one volume of carbon monoxide for 500 volumes of air (1/500 of carbon monoxide in the air) will cause death in a few hours.

The presence of one volume of carbon monoxide for 20 volumes of air (1/20 of carbon monoxide) will cause death in 15 minutes.

The coefficient of carbon monoxide poisoning using the method of NICLOUX and BALTHAZARD is the ratio carboxyhemoglobin: total hemoglobin.

A coefficient of .10 and .20 causes some shortness of breath.

A coefficient of .30 to .40 causes headaches.

A coefficient of .40 to .50 causes fainting.

A coefficient of .50 to .60 causes convulsions.

Coma and death result when the coefficient is over .60.

#### 4. CONCLUSIONS

##### Established Facts

4.1.1 The plane's certificate of air worthiness was valid, and the maintenance of the plane had been carried out in conformity with the regulations in force. The structure of the plane, its controls, tail and rudder units, its engines, weight and load distribution played no part in the accident.

4.1.2 The crew possessed the licenses and qualifications required for this flight.

4.1.3 During the approach, the fire started in the cabin, specifically in the rear lavatories.

4.1.4 Although the crew took action as soon as smoke was discovered, their actions had no effect, since the source of the fire could not be located.

4.1.5 The spread of smoke was extremely rapid, and made the situation untenable, obliging the pilots to effect a forced landing, 5 kilometers from the runway.

The plane was destroyed by fire on the ground, despite the rapid intervention of the firefighters.

4.1.6 No pre-existing anomaly which could explain the origin of the fire was discovered on the plane's equipment. There was no sign of foul play.

4.1.7 There is no evidence which would imply that the cabin fixtures did not comply with the manufacturer's specifications.

4.1.8 Doubt does exist, though, on the conformity of Boeing specifications to standard CAR 4B. On the one hand, some of the samples taken in the cabin were found to be easily inflammable. On the other hand, the receptacles for used papers did not meet the requirements of paragraph d) of CAR 4B 381; they were not capable of preventing the development of a possible fire.

4.1.9 The forced landing was successful insofar as it could be. All occupants whose seat belts were fastened normally could easily support the plane's de-elevations. Only the crew member, not wearing a seat belt, was killed by the impact.

4.1.10 Even though the doors and exits were not blocked, only the occupants of the cockpits and two stewards who were forward of the passenger cabin were able to escape from the plane by their own means.

4.1.11 The analyses conducted revealed that a high proportion of fatalities could be attributed to carbon monoxide poisoning. Analyses performed on the mechanic killed by the shock of impact make it possible to affirm that at that time, carbon monoxide poisoning of the occupants was sufficient to prevent them from acting.

4.1.12 Over 75% of the deaths were due to carbon monoxide. Most of the other fatalities appear to have been

caused by suffocation after the inhalation of other toxic gases.

#### **Probable Cause**

The probable cause of the accident is a fire which appears to have broken out in the sink unit of the rear starboard lavatory. The fire was detected after smoke had penetrated the contiguous port lavatory. The fire could have been caused by either an electrical incident or by passenger carelessness.

The difficulty in locating the source of the fire rendered the intervention by the cabin crew ineffective. For their part, the cockpit personnel had no means available to them from the cockpit for taking effective action against the development of the fire and the invasion of smoke.

The absence of visibility in the cockpit resulted in the decision by the crew to effect a forced landing. At the moment of contact with the ground, the fire was confined to the rear lavatory area. The occupants of the passenger cabin were more or less poisoned by carbon monoxide and other combustion products. After the plane had come to a halt, the fire grew and spread toward the forward part of the plane, with the result that the crew, themselves injured or poisoned, as well as those arriving first at the scene, were unable to evacuate the passengers.

Chairman of the Board of Inquiry

R. LEMAIRE

General Engineer, Civil Aviation

P. CAROUR

Vice-President of Civil Aeronautics

Medical Council

DR. C. GIGNOUX

Vice-Chairman of the Board

GENERAL M. MARTINET

Check pilot, Head of Flight Control Agency

P. TESTU

Chief Engineer, Civil Aviation  
P. GUILLEVIC

Aircraft Commander for Air France

[Illegible]

UNITED STATES DISTRICT COURT  
CENTRAL DISTRICT OF CALIFORNIA

Case No. CV-78-0914-WPG

EMMA ROSA MASCHER; ALFRED ROSA; GUIDO ROSA;  
RAYMOND ROSA; BRUNO ROSA; CORIDO ROSA; AND ERNEST  
ROSA, Individually and as Heirs and Legatees for EILO  
ROSA, DECEASED, ET AL., PLAINTIFFS,

v.

UNITED STATES OF AMERICA, DEFENDANT.

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## AFFIDAVIT OF ERNEST ROSA

Ernest Rosa, of legal age, a citizen of the State of New York residing at 91-18 163rd Avenue, Howard Beach, New York appeared before me, a notary public of the jurisdiction and upon being sworn did depose and say:

1. This affidavit is given pursuant a lawsuit filed by my brothers, my sister and I for the wrongful death of our brother Elio Rosa as a result of a fire which occurred on board a Boeing 707 aircraft as it approached Orly Airport, Paris, France, on July 11, 1973.
2. My brother, though an American citizen, and employed by an American firm as an engineer, resided in Europe for the 20 years prior to his death and during that period frequently flew on company business.
3. During the period of time that the French built "Caravelle" had several tragic accidents we discussed aircraft safety with him during one of his visits to the United States.
4. At that time none of us had ever flown in an airplane and all of us were apprehensive about his safety and that of his wife during his many plane trips all over the world on company business.
5. He assured us that he had complete faith in the American planes on which he flew, that he would never fly on foreign built aircraft, including the Caravelle, because he

doubted that the foreign planes had the same rigid government inspections as did the American planes.

6. This subject was discussed almost every time he came home to New York for a visit.

7. I am of the opinion that my brother and my sister-in-law consciously and purposefully insisted on travelling on American built airplanes because of what they thought were very rigid and thorough-going government inspections.

And further your dependent sayeth not.

/s/ Ernest Rosa

ERNEST ROSA

Sworn to before me this 1 day of December, 1980

/s/ Russell L. Hull

RUSSELL L. HULL

*Notary Public*

UNITED STATES DISTRICT COURT  
CENTRAL DISTRICT OF CALIFORNIA

Civil Action No. 78-914-WPG

EMMA ROSA MASCHER, ALFRED ROSA, GUIDO ROSA,  
RAYMOND ROSA, BRUNO ROSA, CORDIO ROSA, AND ERNEST  
ROSA, Individually and Heirs and Legatees, of ELIO ROSA,  
DECEASED, ET AL., PLAINTIFFS,

v.

THE UNITED STATES OF AMERICA, DEFENDANT.

---

Case No. CV-76-0187-WPG

S. A. EMPRESA DE VIACAO AERA, RIO GRANDENSE  
(VARIG AIRLINES), PLAINTIFF,

v.

THE UNITED STATES OF AMERICA, DEFENDANT.

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**AFFIDAVIT OF MELVIN CRAIG BEARD**

MELVIN CRAIG BEARD being duly sworn, deposes and says:

1. My name is MELVIN CRAIG BEARD and I am Director of Airworthiness of the Federal Aviation Administration (FAA), Washington, D.C. The Office of Airworthiness is the FAA national headquarters organizational element responsible for the development of regulations, policies, and field programs relating to the airworthiness, including type certification, of civil aircraft on the United States Civil Aircraft Registry and for export to other countries. The scope of my functions include aircraft design approval, manufacturing quality control systems approval, individual aircraft airworthiness approval, the development of aircraft maintenance performance standards, and the certification of airmen, air agencies, and operators programs relative to the continued airworthiness of civil aircraft. I am a registered aeronautical engineer (Professional

Engineer Certificate No. 23927, Texas) and have been involved with the type certification of civil aircraft since mid 1955. I became employed with the FAA in type certification work in early 1965 and have held several positions since with progressive levels of responsibility in type certification for both general aviation and transport category aircraft. I have been Director of Airworthiness since the Office of Airworthiness was established in late 1979. Additionally, I am the United States member of the International Civil Aviation Organization (ICAO), Airworthiness Committee. I have personal knowledge of the matters stated herein except for those matters stated upon information and belief, which matters I believe to be true. I make this affidavit in support of the UNITED STATES MOTION for SUMMARY JUDGEMENT.

2. This affidavit is made to describe the FAA's airworthiness assurance programs as they exist today and as I understand they existed at the time the Boeing Aircraft Model 707 series aircraft were certificated.

3. Section 603(a) of the Federal Aviation Act of 1958 (FAAAct) (49 USC 1423) empowers the Secretary of Transportation to issue type certificates for aircraft. The Secretary of Transportation is required to make, or require the applicant for type certification to make, such tests during manufacture and upon completion as the Secretary of Transportation deems reasonably necessary in the interest of safety. It has been my experience since employment with the FAA that the applicant is required to make all tests leading to type certification and that the FAA does not normally develop or conduct tests independent of those conducted by the applicant.

4. A Type Certificate constitutes FAA approval of an aircraft design in detail, and an Airworthiness Certificate constitutes a finding by the FAA that a particular aircraft conforms to a design approved under a type certificate and is in a condition for safe operation.

5. Three Certificates, that is Type, Production, and Airworthiness Certificates taken together, are intended to assure the Original Airworthiness of individual aircraft. In summary, the design is approved under a Type Certificate,

the production quality control system under which the aircraft is manufactured is approved under a Production Certificate, and each individual aircraft is approved as conforming to the approved design and as being in a condition for safe operation by issuance of an Airworthiness Certificate.

6. Once an Airworthiness Certificate is issued, the Continued Airworthiness of a particular aircraft is highly dependent upon an on-going maintenance program conducted pursuant to the Federal Aviation Regulations and the operators duties under Section 601(b) and 605(a) of the FAAct (49 USC 1421, 1425). In fact, the safety of a particular aircraft at any point in time is as dependent upon the integrity of the Continued Airworthiness programs applied as it is upon the Original Airworthiness of the aircraft. The FAA has virtually no regulatory authority or control over the Continued Airworthiness of foreign registered aircraft, notwithstanding the fact that they or their component parts may have been manufactured in the United States.

7. In developing the minimum standards for the type certification of aircraft design and for airworthiness certification of individual aircraft, it is assumed that the aircraft will be operated and maintained with a high level of integrity. In fact, Section 601(b) of the FAAct (49 USC 1421) stipulates that in prescribing standards, rules, and regulations, and in the issuing of certificates under this title, the Secretary of Transportation shall give full consideration to the duty resting upon the air carrier to perform their services with the highest possible degree of safety in the public interest.

8. The FAA has no jurisdiction or authority to regulate either the Original or Continued Airworthiness of aircraft that are not on the United States Civil Aircraft Registry and that are not operated in United States airspace. A United States manufacturer, operator, or other person may lawfully sell an aircraft to a foreign entity without meeting the FAA safety regulations. Particular aircraft that have been manufactured to basic designs approved under an FAA Type Certificate may be lawfully sold and exported to foreign entities with design deviations of safety significance

that do not meet FAA Type or Airworthiness Certification requirements. The airworthiness of a civil aircraft is the basic responsibility of the State of Registry. Additionally, the issuance or non-issuance of an Airworthiness Directive by the FAA is a judgemental decision and the FAA is not required by statute to issue an Airworthiness Directive. The legal applicability of FAA Airworthiness Directives to foreign registered aircraft are likewise at the discretion of the State of Registry.

9. When a particular aircraft is removed from the United States Civil Aircraft Registry, any FAA Airworthiness Certificate previously issued to the aircraft becomes invalid. United States Registration is a condition for FAA Airworthiness Certification (14 CFR 21.173).

10. Pursuant to Public Law 89-497 (1 USC 113), or previous statutes, the United States Government has entered into about 23 agreements with other countries to facilitate the reciprocal acceptance of certificates of airworthiness for import aircraft products and components, commonly referred to as Bilateral Airworthiness Agreements. Such an agreement was effected between the United States of America and Brazil by an exchange of notes, signed by Brasilia on June 16, 1976, and entered into force on the same day. In summary, relative to complete aircraft, the Bilateral Airworthiness Agreement provides that if the competent airworthiness authority of the Exporting State certifies to the competent airworthiness authority of the Importing State that a particular aircraft meets the airworthiness requirements of the Importing State, then the Importing State will honor that certification by issuing its own airworthiness Certificate. The Importing State is free to require compliance with its own airworthiness requirements. In fact it is not uncommon for an aircraft manufactured in the United States to be exported to another country with deviations from the FAA approved design, to satisfy special requirements of the Importing state. Among other things, the Bilateral Airworthiness Agreements stipulate that the competent airworthiness authorities of each Contracting State shall keep the competent airworthiness authority of the other Contracting State fully informed of

all mandatory airworthiness modifications and special instruction which they determine are necessary in respect of imported or exported aircraft. The FAA usually makes its certifications of compliance and aircraft condition to the Importing State in the form of a Class I Export Certificate of Airworthiness issued under Federal Aviation Regulations, Part 21, Subpart L (14 CFR Part 21). At the time of the subject accident (July 11, 1973), there was no Bilateral Airworthiness Agreement between Brazil and the United States.

11. The ultimate responsibility for the Original Airworthiness of an aircraft rests with the Importing State, or State of Registry, that issues its own Airworthiness Certificate and maintains the validity of the aircraft's Airworthiness Certificate through its own system for regulating Continued Airworthiness.

12. Whether or not a Bilateral Airworthiness Agreement exists with the Importing State, when requested, any exporter or his authorized representative may obtain a Class I Export Certificate of Airworthiness for an aircraft to be exported provided the export airworthiness approval requirements of Federal Aviation Regulation, Part 21, Subpart L (14 CFR 21.321 through 21.339) are met.

FAA Class I Export Certificates of Airworthiness are issued to attest to the design conformity and condition of the aircraft at the time of issuance to facilitate airworthiness certification by the future State of Registry. Exporters are not required by the FAA to obtain an Export Certificate of Airworthiness. The only way for a foreign government to be assured that a particular aircraft exported from the United States complies with an approved design and is in a condition for safe operation without conducting their own engineering evaluations and inspections, would be to acquire an FAA Class I Certificate of Airworthiness. I have been unable to find any evidence in FAA records that a Class I Export Certificate of Airworthiness was ever requested or issued to Varig operated, Boeing Model 707-345C airplane, Serial Number 19841 (Subject accident airplane).

13. If the FAA was not requested, and did not issue a Class I Export Certificate of Airworthiness for the Boeing Aircraft Company Model 707-345C airplane, Serial Number 19841, the FAA would not have had any reason to inspect or otherwise determine if the subject airplane was of a configuration in detail covered by the Boeing held Type Certificate nor, whether the airplane was in a condition for safe operation and held a current and valid FAA Airworthiness Certificate at the date of title transfer prior to removal from the United States Civil Aircraft Registry. Also, the FAA would not have had any reason to ascertain if any agency of the Brazilian Government had approved deviations.

14. The purpose of the ICAO International Standards, Airworthiness of Aircraft, Annex 8, is to facilitate the operation of an aircraft registered in and certificated by one Contracting State within another Contracting State. Annex 8 is *not* intended to provide a basis for the airworthiness certification by one Contracting State for aircraft manufactured in another Contracting State. Both the United States and Brazil are Contracting States to the Chicago Convention under which ICAO is chartered.

15. The ultimate responsibility for regulating the airworthiness of a particular airplane rests with the State of Registry, unless specific arrangements are made to the contrary. When the aircraft in question were manufactured in the United States, the FAA can and has assisted foreign airworthiness authorities in this regard; but, the FAA has neither the resources nor legal authority to assure the airworthiness of aircraft registered and operated in other countries, even if those aircraft may have been manufactured in the United States.

And further deponent sayeth not.

/S/ Melvin Craig Beard

MELVIN CRAIG BEARD

Sworn to me before this \_\_\_\_ day of January 1981

**CIVIL AIR REGULATION 4b.381(d)(1953)**

§ 4b.381 *Cabin interiors.* All compartments occupied or used by the crew or passengers shall comply with the following provisions.

- (a) The materials in no case shall be less than flash-resistant.
- (b) The wall and ceiling linings, the covering of all upholstering, floors, and furnishings shall be flame-resistant.
- (c) Compartments where smoking is to be permitted shall be equipped with ash trays of the self-contained type which are completely removable. All other compartments shall be placarded against smoking.
- (d) All receptacles for used towels, papers, and waste shall be of fire-resistant material, and shall incorporate covers or other provisions for containing possible fires.

UNITED STATES OF AMERICA  
NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, DC

ISSUED: SEPTEMBER 5, 1973

Adopted by the NATIONAL TRANSPORTATION SAFETY  
BOARD  
at its office in Washington, D.C.  
on the 22nd day of August 1973

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FORWARDED TO:

Honorable ALEXANDER P. BUTTERFIELD  
Administrator  
Federal Aviation Administration  
Washington, D.C. 20591

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**SAFETY RECOMMENDATIONS A-73-67 thru 70**

A recent in-flight fire on a Boeing 707-300 (series) aircraft resulted in 124 fatalities and total destruction of the aircraft after a successful emergency landing. The in-flight cabin interior fire did not involve the aircraft's fuel but was fed by the interior's material.

Although the accident remains under investigation at the present time, and the cause of the fire has not been determined by the state conducting the investigation, the National Transportation Safety Board has been advised through its accredited representative who has participated in the investigation that the smoke origin was in the area of the aft lavatories.

The Board is also aware of and is seriously concerned over the number of in-flight fires that have occurred during the past several years as a result of ignition of flammable materials in lavatories of large jet transport aircraft.

A limited examination of such aircraft lavatories by our staff has disclosed the following: (1) no fireproof waste material containers are provided in the lavatories; (2) frequently, cigarette butts are found in waste paper containers during cleaning operations at the termination of flights; (3) waste paper fragments and other flammable materials, such as lint and dust particles, can enter inadvertently into

terminals or electrical units; (4) full-face smoke masks with emergency oxygen bottles are not provided for the cabin crew; and (5) lavatories are vented in such a manner as to exhaust any odors or smoke in the case of lavatory fires, thus precluding detection in the cabin area until a serious fire is in progress.

The National Transportation Safety Board, therefore, recommends that the Federal Aviation Administration:

1. Require a means for early detection of lavatory fires on all turbine-powered, transport-category aircraft operated under Part 121 of the Federal Aviation Regulations, such as smoke detectors or operating procedures for the frequent inspection of lavatories by cabin attendants.
2. Require emergency oxygen bottles with full-face smoke masks for each cabin attendant on turbine-powered transport aircraft in order to permit the attendants to combat lavatory and cabin fires.
3. Reevaluate certification compliance with section 4b.381(d) of the Civil Air Regulations on Boeing 707 series aircraft.
4. Organize a Government/industry task force on aircraft fire prevention to review design criteria and formulate specific modifications for improvements with respect to the fire potential of such enclosed areas as lavatories in turbine-powered aircraft operating under the provisions of Part 121 of the Federal Aviation Regulations.

The Bureau of Aviation Safety staff has briefed technical staff members from your Flight Standards Service, AFS-50 and AFS-300, as well as members of the Aircraft and Airport Operating Problems Branch of the National Aeronautics Space Administration.

If we can be of further assistance in this matter, please feel free to contact us.

McADAMS, THAYER, and HALEY, Members, concurred in the above recommendations. REED, Chairman, and BURGESS, Member, were absent, not voting.

/s/ William R. Haley

WILLIAM R. HALEY  
*Acting*

By: JOHN H. REED  
*Chairman*

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
WASHINGTON, D.C. 20590

MAY 2, 1974  
Notation 1167A

Honorable JOHN H. REED  
Chairman, National Transportation Safety Board  
Department of Transportation  
Washington, D.C. 20591

Dear Mr. Chairman:

This is in response to your letter of March 28 requesting the action taken with respect to Safety Recommendations A-73-67 thru 70.

*Recommendation A-73-67.* Require a means for early detection of lavatory fires on all turbine-powered, transport category aircraft operated under Part 121 of the Federal Aviation Regulations (FARs), such as smoke detectors or operating procedures for the frequent inspection of lavatories by cabin attendants.

*Comment.*

Airworthiness Directive, Amendment 39-1818, Docket No. 13603, was issued April 3 with an effective date of April 30. It is applicable to all transport category airplanes and requires the installation of ash trays outside of lavatory entry doors and installation of "No Smoking" and "No Cigarette Disposal" placards on lavatory and disposal containers respectively.

It also contains a requirement for briefing passengers on the lavatory smoking prohibition as well as respective inspections and any necessary corrections of container disposal and access doors for proper operation, fit, sealing and latching. Thirty days after the effective date of the AD are allowed for the briefing and inspection provisions, 60 days for placard installations and 180 days for the lavatory ash tray installations.

We have also begun a pre-regulatory study of the feasibility of and justification for a requirement for heat sensors or smoke detectors in lavatories.

*Recommendation A-73-68.* Require emergency oxygen bottles with full-face smoke masks for each cabin attendant on turbine-powered, transport aircraft in order to permit the attendants to combat lavatory and cabin fires.

*Comment.* We agree with the Board's recommendation to have full-face masks available to the cabin attendants but, as in the case of the wide-bodied jets with a large number of attendants, we do not believe it necessary that each attendant be assigned a mask. We plan to propose an amendment to FAR 25.1439(a) to clarify the requirement to provide protection from smoke and other harmful gases for appropriate crewmembers of pressurized transport airplanes. An additional amendment to FAR 121.337 is planned to specify that protective breathing equipment meet the requirements of FAR 25.1439 and that procedures be established regarding the use of 100% oxygen in a smoke/fire emergency.

*Recommendation A-73-69.* Reevaluate certification compliance with Section 4b.381(d) of the Civil Air Regulations (CAR) on Boeing 707 series aircraft.

*Comment.* An extensive investigation of lavatory waste paper containers on the Boeing 707 and other transport airplanes was conducted to determine whether the containers were in compliance with the requirements of CAR 4b.381(d) (FAR 25.853(d)). The investigation revealed some deficiencies associated with the containment provisions. The following corrective action has been taken:

a. A proposed Airworthiness Directive, Docket No. 73-NW-12-AD, was issued April 2. It is applicable to Boeing Models 707/720/727/737/747 airplanes and provides for a visual inspection and necessary replacement of all electrical appurtenances within lavatory waste containers. In addition, it provides for rework of lavatory containers. Service bulletins applicable to the Boeing 707 airplanes are SBs 1270, 1363, 1365 and 3146. The inspections must be accomplished within 300 hours and the rework within 1000 hours or 100 days (whichever occurs first) after the effective date of the AD.

b. Airworthiness Directive, Amendment 39-1818, as described above also applies to the action taken in connection with this recommendation.

c. Two proposed Airworthiness Directives were issued April 4. One AD applies to McDonnell/Douglas DC-8-20/30/40/50 airplanes under Docket No. 74-WE-11-AD. The other applies to General Dynamics Models 22/22M/30/30A airplanes under Docket No. 74-WE-10-AD. These directives will cover the inspections and necessary replacement of electrical appurtenances within the lavatory containers and assure correction of any adverse conditions.

*Recommendation A-73-70.* Organize a Government/Industry task force on aircraft fire prevention to review design criteria and formulate specific modifications for improvements with respect to the fire potential of such enclosed areas and lavatories in turbine-powered aircraft operating under the provisions of Part 121 of the FARs.

*Comment.* In addition to correcting the immediate lavatory fire protection problem, a long range program has been initiated to review fire protection needs pertinent to all areas of the airplane cabin. This program, in part, includes a Government/Industry committee established under the National Academy of Sciences-National Research Council. This committee will examine fire problems associated with cabin materials. A report is anticipated in May 1975 and will be distributed to all interested persons. This effort, along with FAA studies presently covering interior cabin materials, fire containment design, test criteria, and fire extinguishing/detection equipment needs, will form a basis for future regulatory action.

Sincerely,

/s/ James L. Dow,

For

ALEXANDER P. BUTTERFIELD

Administrator

## TRANSPORT CATEGORY AIRCRAFT AIRWORTHINESS DIRECTIVE

### Volume I & II

#### 74-08-09 TRANSPORT CATEGORY AIRCRAFT.

Amendment 39-1818. Applies to all transport category aircraft having one or more lavatories equipped with paper or linen waste receptacles, including but not limited to the following: Boeing Models B-707, 720, 727, 737, and 747 Series; British Aircraft Corporation Model BAC-1-11; Convair Models CV-880 and 990 Series; McDonnell Douglas Models DC-8, 9, and 10 Series; Lockheed Model L-1011; Aero Commander Model AC-680; Boeing Model B-377; Convair Models CV-580, 600, and 640 Series; deHavilland of Canada Model DHC-6; Fairchild Model F-27; Fairchild-Hiller Model FH-227; Grumman Model G-159; Hawker Siddeley Model HS-748; Lockheed Models L-188 and 382 Series; Short Brothers and Harlin Model SC-7; Nihon Model YS-11; Fairchild Model C-82; Convair Models 240, 340, and 440 Series; Curtis-Wright Model CW-46; Douglas Models DC-3, 4, 6, and 7 Series; Lockheed Model L-1049; Martin Model M-404 Aircraft.

To prevent possible fires that could result from smoking materials being dropped into lavatory paper or linen waste receptacles:

(a) Within 60 days after the effective date of this AD, unless already accomplished, accomplish the following:

(1) Install a placard on each side of each lavatory door over the door knob containing the legible words "No Smoking in Lavatory" or "No Smoking" to indicate that smoking is prohibited in the lavatory. The signs must be of sufficient size and contrast and be located so as to be conspicuous to lavatory users.

Note: A "No Smoking" symbol may be included on the placard.

(2) Install a placard on or near each lavatory paper or linen waste disposal receptacle door containing the legible words "No Cigarette Disposal."

(b) Within 30 days after the effective date of this AD, unless already accomplished, establish a procedure that re-

quires that, prior to each flight, an announcement be made by a crewmember to inform all aircraft occupants that smoking is prohibited in the aircraft lavatories.

(c) Within 180 days after the effective date of this AD, unless already accomplished, install a self-contained, removable ashtray on or near the entry side of each lavatory door, except that one ashtry may serve more than one lavatory door if the ashtray can be seen readily from the cabin side of each lavatory door served.

(d) Within 30 days after the effective date of this AD, unless already accomplished within 30 days prior to the effective date of this AD, and thereafter, at intervals not to exceed 1,000 hours time in service from the last inspection, accomplish the following:

(1) Inspect all lavatory paper and linen waste receptacle enclosure access doors and disposal doors for proper operation, fit sealing, and latching for the containment of possible trash fires.

(2) Correct all defects found during the inspections required by subparagraph (d)(1).

(e) Upon request of the operator, a principal FAA maintenance inspector, may adjust the 1,000 hour repetitive inspection interval specified in subparagraph (d)(1) of this AD to permit compliance at an established inspection period of the operator if the request contains data to justify the requested change in the inspection interval.

This amendment becomes effective April 30, 1974.

**FEDERAL AVIATION ADMINISTRATION**

(14 CFR PART 39)

(Docket No. 73-NW-12-AD)

**AIRWORTHINESS DIRECTIVES**

Boeing Models 707/720/727/737/747

**Notice of Proposed Rule Making**

The Federal Aviation Administration is considering amending Part 39 of the Federal Aviation Regulations by adding an airworthiness directive applicable to the Boeing Models 707/720/727/737/747 series airplanes. Many incidents of in-flight lavatory waste container fires have been reported.

FAA reviews of lavatory designs on Boeing Models 707/720/727/737/747 series airplanes have revealed that many waste container systems exhibited a number holes, gaps and cracks within the container envelope. These openings provided numerous small air pathways leading to adjacent lavatory compartmentation and to the aircraft cabin interior. Such air pathways may tend to create larger waste container volumes than that defined by the four sided container. In addition vent tubes are physically located within the intended waste container volume. Any failure of the vent tubes could provide an added potential source of ventilating air. Examination of in-service waste container systems have revealed that with time various flammable materials such as dust, lint and wastepaper accumulate beyond the waste containers (through the gap, holes and cracks) constituting a fire potential. With the introduction of cigarette butts fires may start and propagate beyond intended container volume by virtue of the multiplicity of pathways and chimneys. Possible melting of the vent tubes introduces additional vent air to the container causing a draft by the fire and can lead to a conflagration. Such fires, although originally confined to the lavatory module, can thereby develop into uncontrollable cabin fires leading to aircraft destruction and loss of life. For the reasons mentioned above, it is considered that the ability of many of the existing lavatory waste container systems may not be able to contain within the waste container a fire which reaches substantial proportions. Since this condition

is likely to exist or develop in other airplanes of the same type design the proposed airworthiness directive would require a thorough inspection of all electrical appurtenances physically located within lavatory waste container areas for proper condition and accomplishment of lavatory rework, as necessary, in accordance with prescribed Boeing Service Bulletin instructions on all 707/720/727/737/747 airplanes.

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views or arguments as they may desire. Communications should identify the docket number and be submitted in duplicate to the Department of Transportation, Federal Aviation Administration, FAA Building, Boeing Field, Seattle, Washington 98108. All communications received on or before July 1, 1974, will be considered by the Administrator before taking action upon the proposed rule. The proposals contained in this notice may be changed in the light of comments received. All comments will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons.

This amendment is proposed under the authority of Section 313(a), 601 and 603 of the Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1421, 1423) and of Section 6(c) of the Department of Transportation Act (49 U.S.C. 1655(c)).

In consideration of the foregoing, it is proposed to amend Section 39.13 of Part 39 of the Federal Aviation Regulations by adding the following new airworthiness directive.

**The Boeing Company.** Applies to Models 707/720/727/737/747 series airplanes certificated in all categories. Compliance required as indicated.

To reduce potential fire hazard, existing in lavatory waste containers of Boeing Models 707/720/737/747 series airplanes, accomplish the following:

(a) Within 300 hours time in service from the effective date of this AD, unless already accomplished within the last 1000 hours, visually inspect all electrical appurtenances, including wiring, terminal boxes, switches and hot water heaters physically located within lavatory waste container areas for wear, abrasion and corrosion. Remove and replace as necessary.

(b) Within 1000 hours time in service, or 100 days, whichever occurs first, from the effective date of this AD, unless already completed, accomplish lavatory rework in accordance with the following Boeing Service Bulletins, or a lavatory rework that has been found acceptable to the Chief, Engineering and Manufacturing Branch, FAA, Northwest Region:

<i>MODEL</i>	<i>SERVICE BULLETIN NO.</i>
707/720	1270, 1363, 1365, 3146
727	725-25-211
737	737-25-1096
747	747-25-2245

J. H. TANNER  
*Acting Director*  
*FAA, Northwest Region*

Issued in Seattle, Washington, April 2, 1974.

### DEPOSITION OF RUDOLF KAPUSTIN

[715] Q [MR. BOSTWICK] Did you, or the people who were doing your requests, come up with one or more regulations pertinent to the design requirements of this container area?

A [BY MR. KAPUSTIN] Yes, sir.

Q Let me hand you what you have produced in this deposition and that has been marked as Exhibit 22.8, specifically directing your attention to Section 4b.381(d) and ask you if that is the regulation that you have just referred to.

\* \* \*

[716] A Yes, sir, it is.

Q Where did that exhibit come from, if you know? Where was it obtained?

A This is just a Xerox copy of the Civil Air Regulations, Part 4b, covering airplane airworthiness, transport categories, that was in effect and applicable at the time that the Boeing airplane 707 was certificated.

Q How was it determined that this was the regulation applicable at the time the 707 was certificated?

A Well, the regulation that would apply is that [717] regulation that would be in effect at the time that the manufacturer would apply for a type certificate, when the application for the type certificate was first made.

Q The first 707?

A I don't know that, sir. It would be at the time—the regulation in effect at the time the application is made for a type certificate.

\* \* \*

Q What do you mean by type?

A For that type and model aircraft. There could be several models of the 707 models here.

Q Was an effort made by you, or anyone else at the NTSB, to determine whether that regulation that has been produced here and marked as 22.8 is the regulation that applied to the design of the lavatory trash container that was in PP-VJX?

A Yes, sir.

Q Who did that?

A I believe I did that myself.

Q Can you just describe for us how you concluded that you were looking at the appropriate [718] regulation?

A We determine from FAA records when the airplane was type certificated and when the application was made for the type certificate, and thus determine that this regulation was the one that was in effect at the time the application was made for the type certificate.

Q Had you looked up that regulation by the time you took the trip to Rio?

A Yes, sir.

\* \* \*

[740] Q All right. Now let me show you Exhibit 23.11, which you have already identified, and direct your attention to the location of the sink in the port starboard lavatory, as it relates to the toilet itself, and see if that helps you orient which of these two photographs is the starboard aft lavatory, if it is.

A Sir, according to this schematic, 25.6, that has the sink on the right-hand side of the toilet, this would be the right-hand, the starboard aft lavatory, and the 25.5 would be the port lavatory.

Q All right. Then let us re-arrange them here, and let me ask you if, in general, these two photographs represent the starboard and port aft lavatories, as you saw them in Rio, prior to their being dismantled.

[741] A Yes, sir.

Q Can you identify what this is that I'm pointing to? Can you circle it on 25.6 and tell me if you can identify that?

A I can't read it, really. It's a door of some type.

Q Do you recognize what type of door it is? Can you circle it, to start with.

Better take a look at 25.5 and circle the same thing in the other lavatory, and perhaps you can read it better.

Let's mark the one on 25.6 as RK-56, and the other one as RK-57. that's on 25.5.

\* \* \*

[792] A Yes, sir, if the passenger load was high enough, not just a normal flight, you know, if there was maximum passenger load, or a large number of passengers, it could be—could have quite an accumulation in there.

Q Did you obtain any evidence that on long [793] flights the air coming into the lavatory would dry those papers out?

\* \* \*

Q What evidence did you obtain, if any, in connection with long flights and papers in this area, with regard to whether or not those papers would be dried out over a time?

A Well, sir, the atmosphere in high altitudes is dry, anyhow, and it's warm under there, and it would normally, given sufficient time, it could dry out, yes, sir.

\* \* \*

[844] Q Now, would you look back at 25.28, and perhaps the arrow on RK-102 is in the wrong place. Can you point it out on 25.28, where the air space is, if it isn't on RK-102?

A It's the area behind here.

Q Let's draw an arrow to that and make it RK-104.

Now, at RK-104, was that air space one of the items included in the accident investigators—in the group of spaces that the accident investigators concluded could act with a chimney effect in the event of a lavatory fire?

A Yes.

\* \* \*

[856] Q What was the conclusion reached with regard to how burning through of this ventilation tube would feed oxygen to a fire?

A It would open an air supply to the back of the compartment.

[904] Q And 25.44; can you identify that?

A Yes, sir, that's the back side of a lavatory sink module.

Q Of the same unit of which the front was shown in 25.43?

A Well, I don't know whether it's the same one. It's the same type. I can't tell without—

Q Do you know whether several photographs were taken of the unit that we are looking at, that's marked "WCD" that we are looking at in 25.43?

A Yes, sir, quite a few photographs were taken.

Q Does this photograph, 25.44, represent what you saw when you viewed the teardown of this VJX?

A Of that view, it does, sir.

Q All right, can you put a circle around this item, please, and mark that RK-123?

Can you identify that for us, please?

A It's a hole.

Q Do you know what purpose it serves, if any?

A No, sir?

Q Was the Boeing representative that you gave the name of earlier, who viewed this, who went to [905] Rio for this teardown, was he around when this toilet module was removed and these photographs were being taken?

A Yes, sir.

Q Was that Mr. Elton Hall?

A Yes, sir.

Q Did anyone ask Mr. Hall what the purpose of that hole was?

A Yes, sir.

Q What was his reply, if any?

A I don't think he knew, either.

Q Why, if you know, why was there an inquiry of the accident investigators concerning that hole?

\* \* \*

[906] A Well, sir, it was, the inquiry and the investigation, and the purpose for tearing this module down, wasn't just to determine the reason for that hole, but it was to determine the reason for all the other holes, and to what extent the compartment is airtight, or it was not airtight.

Q With regard to that hole, was an effort made to determine whether that made the trash container area, that is shown here in the front view of 25.43, was an effort made to determine whether or not that hole had any effect on the airtightness, or nonairtightness of that trash area?

\* \* \*

[907] A Yes, it is part of the area. It serves as a receptacle.

Q Was an effort made by the accident investigators to determine whether, if a trash fire started in the trash container area underneath the sink of this module, whether it would probably come out that hole; the fire, that is?

A Well, sir, it's—I don't want to give any misleading answers. That hole is just part of a series of openings in the module.

Q Can you point those out to us, each of them? Can you circle them?

[908] A They're not all shown on this picture.

Q All right, we'll go through some other pictures.

How about the ones shown—are there any shown on that picture, other than RK-123?

A Well, sir, the top of the area is shown and—

Q All right, can you circle that and mark it RK-124? Let's make a mark to that as RK-124, those two circles, and any other areas.

A I don't recall what the other two holes are in this picture, but there are other pictures that depict other openings.

Q Can you then circle the other two holes that you have just referred to as RK-125, and let me ask you specifically whether you know if any of the vents or drains going into this sink area go through these holes?

A I don't recall specifically but—

Q Does it assist you to refer to 25.43 in that connection?

A No, sir.

Q How about 25.32, which you previously testified to, specifically, with regard to RK-111, which [909] you have already identified?

\* \* \*

A Well, RK-111 was one of the vents I didn't know which one it was, and I couldn't tell for certain whether it went into one of those holes.

Q Well, specifically with regard to 25.6 and RK-60, that vent eye-ball there, do you know whether or not one of those holes has anything to do with that vent?

A You mean the hole marked RK-125?

Q Well, you've got two holes there.

A The two holes?

Q Yes.

A I don't know whether those are directly [910] associated with that air outlet or not.

Q With regard to the bottom hole in RK-125, are you—specifically, do you know whether it has any connection with the sink drain hose?

A Again, sir, I can't say, with absolute certainty, without looking at other pictures.

\* \* \*

Q All right, what is the hole you have marked as RK-124 on the left?

A Sir, that's just the opening at the upper area of the module, as seen in 124.

Q Do you know what its purpose is?

A No, sir, I do not.

Q Specifically, by looking at 25.6, or anything else, do you know whether it's the hole through which the paper towels drop after deposit through RK-56?

A No, sir, I don't.

Q What about the other hole, to the right of RK-124? Can you identify that in any way?

A No, sir. It's just a hole.

Q Let me show you, in connection with these [911] holes, the 25.45, and, first of all, ask you if you can identify whether that is the same module taken at a different view.

A Yes, sir, that's a different view of the same module.

Q And does it represent what you saw during the teardown of VJX?

A Yes, sir.

Q Can you circle this item here at RK-126?

\* \* \*

Q Okay. RK-126, can you identify that for us, please?

A Yes, that's a hole.

Q Is that another one of the holes that was studied, per your recent testimony, in connection with these holes?

A Yes, sir.

Q Do you see any other holes in that photograph, that we have not already marked, that were studied in this connection?

A No, sir, I do not.

Q Does reference to these holes, by a [912] different view, refresh your recollection, in connection with what their purpose is?

A No, sir.

Q Would you circle this item, please, the item with the wire that is going into—

A This wire here?

Q Yes, this connection here. Can you identify that for us, please?

A That's the aft side of the call button and the razor outlet, electrical outlet for the razor.

Q The same thing you identified as RK-108 in 25.6?  
A Yes, sir.

\* \* \*

Q Okay, we need an RK-127 on 25.45 as the back of the razor outlet.

Do you want to put an RK next to it?

In connection with your studies of other smoke and/or fire incidents in lavatories of Boeing 707 type aircraft, did you come across any information concerning whether or not there had been such incidents, the origin of which had begun in the area of RK-127?

A Yes, sir.

[913] Q And can you describe for us what information you learned in that regard?

A Just very general, that there had been one or two cases, where either fire or smoke had developed from some malfunction, or—in the razor outlet area.

Q What, if anything, that you learned in connection with those incidents, concerned waste towels or other trash getting back into that particular area?

\* \* \*

A Well, sir, I don't recall any specific association of trash or waste material with the razor [914] outlet problem.

All I do recall is that it might have been lint or fuzz, or things of that sort, associated with it, but not trash.

Q Did the accident investigators attempt to ascertain the condition of the razor outlets in the two starboard, or in the two aft lavatories, in "C" and "D" lavatories of PP-VJZ?

A Yes, sir, they made an attempt?

Q What was learned, if anything?

A To the best of my recollection, they couldn't tell. The fire damage was too severe to tell whether there was any problem there or not.

Q Couldn't tell whether the fire had originated in that area or not?

A That's correct.

Q What is this other wire here? If you can circle that for us, please, on 25.45, and mark that as RK-128? What is that, if you know?

A That's a button. It's the back end of a button. I think it's the flushing unit; the flushing control.

Q The toilet flush motor?

A Yes, sir.

[915] Q Did you learn of any smoke or fire incidents in 707's, the origin of which had some connection with that particular area, RK-128?

A No, sir, I don't recall.

Q With regard to these holes that you have circled on the two photographs, 25.45 and 25.44, can you tell us, have you now identified, at least in those two photographs, all of the holes that were studied in connection with the testimony you just gave about airtightness?

A Well, sir, I don't recall any others, unless I saw another view of the photograph showing the opposite end of RK-126.

Q Well, I don't see one here that's like that, Mr. Kapustin, so let me then ask you what conclusion, if any, was reached by the investigators concerning these holes you have marked, with regard to the ability of the trash container area beneath the sink of this module, to contain a trash fire, if it started?

A Well, it couldn't contain it?

Q And why is that?

A Because it had holes in it.

Q Was there a conclusion reached about [916] whether or not the fire would probably go out through those holes?

\* \* \*

[917] A Yes, sir.

Q And was the conclusion—

A Yes, if there was smoke or fire in there, it would probably come out of one of those holes, or all of them.

\* \* \*

[936] Q Do I understand, Mr. Kapustin, that to this date Boeing has not given you any information concerning the purpose of these holes?

A I was given information. I don't recall whether it was given directly to me or whether it was given to the French people first.

Q What information did you receive?

A That nobody was quite certain what the [937] purpose of the holes—what they were there for.

There was some conjecture as to what they were for.

Q What did you receive by way of conjecture?

A That they might have been put there, you know, for carrying purposes, hand holes to carry the unit.

\* \* \*

[1041] Q In connection with Item 2 there, where it refers to the cigarette butts, "Frequently, cigarette butts are found in wastepaper containers during cleaning operations at the termination of flights."

Does that refer to the information you received from the staff, that you have already testified to about Mr. Krause's investigation?

A Yes, sir.

\* \* \*

[1065] Q Directing your attention to Exhibit 22.8, which is the section 4b.381(d), can you tell me, and you are free to read that, and I'll just read (d) quickly into the record, which says:

"All receptacles for used towels, papers and waste shall be of fire-resistant material, and shall incorporate covers or other provisions for containing possible fires."

I would like to ask you in what regard did the aft lavatory trash container area of the 707's, such as operated by VARIG, fail to comply with that section, in your opinion?

\* \* \*

[1069] A Well, sir, the compartment, as such, did not first of all, contain any—it was not a container. It was strictly a compartment into which the wastepaper material was allowed to fall when it was introduced by the [1070] flapper door that's up on top of the module.

Number 2, the area, in itself, if this were to be a container, contained flammable material, such as the plastic tubing for the wash water drains, the door, the large door, was of a wood composition material, which although it could have been fire-resistant, to a degree, contained fabric, trim, which was not.

The entire compartment had large holes in it. These holes, even though they wore a cover which was air-tight, would have made the entire compartment nonair-tight and completely incapable of containing any fire or smoke.

\* \* \*

[1071] Q Mr. Kapustin, in connection with the words in that regulation that refer to receptacles, "and shall incor-

porate covers or other provisions for containing possible fires," did you reach a conclusion as to whether or not this trash container area incorporated such a cover, [1072] or other provisions, that's referred to in that regulation.

\* \* \*

A Yes, sir.

Q What was your conclusion in that regard?

A That there is no cover. There's a flapper door, that was opened to put the wastepaper into the container, but there was no cover, as such.

[1204] Q Now, would you take, please, Exhibit 31, which is the english translation of the final French report that you have produced here, and would you look at Page 41, please?

A Yes, sir.

Q Would you look at the last sentence before Paragraph 3.4, which starts with the words, "Although the hypothesis," and ends with the words, "sink unit," and I request premission to read this one sentence into the record.

It reads:

"Although the hypothesis of a fire originating in the port lavatory cannot be definitively excluded, it is more probable that the fire started and developed in the rear starboard lavatory, most likely in sink unit."

Mr. Kapustin, when you were in Paris at this meeting, did Monsieur LeMaire, or any of the othr members of the French investigators, read that statement as a part of the proposed draft?

\* \* \*

[1205] A As far as the contents are concerned, excluding some subsequent editorial changes, yes.

Q Was the substance of that sentence studied [1206] as being proposed to be put in the final report when you were at the meeting?

A Yes, sir.

Q At that time did you express disagreement with that statement?

A No, sir.

Q As a result of your work on the accident investigation in this crash, did you, at that time, agree with that statement?

A Yes, sir.

Q Do you still agree with it?

A Yes, sir.

\* \* \*

[1597] A Sir, can I explain that last answer, please?

Q Well, I would like a yes or no to this question.

\* \* \*

A The reason they relied on me was because the issue was extremely simple. It was a matter of the compartment being able to contain fire and smoke, or the compartment not being able to contain fire and smoke.

We discussed this at great length. It needed no expert evaluation. It was a simple open and shut situation, that the compartment did not meet the requirements.

Q Was not air-tight or fire-proof?

\* \* \*

Q That was the whole question.

\* \* \*

A It was not capable of containing fire or smoke.

\* \* \*

[1625] A The compartment, without going into any detailed engineering analysis, the compartment was full of holes and air spaces, and simply could not, by any stretch of the imagination, be considered capable of containing a fire if a fire were to occur in that compartment.

#### [115] DEPOSITION OF RICHARD NELSON

Q [BY MR. LENHART] How would you describe the trash container?

A [BY MR. NELSON] That is the trash container.

Q The metal box down at the bottom is the trash container?

A Yes.

Q Or is the trash container the whole volume when the door is closed?

A Well, it would be the whole volume when the door is closed.

\* \* \*

[121] Q When you were in Rio was there any discussion of the purpose of those holes which we have just been discussing in the cabinet under the sink?

A I don't know what the purpose of those holes was.

\* \* \*

Q Well, my first question, was there any discussion of those holes?

A Yes.

[122] Q What was the nature of the discussion?

A General discussions. I questioned the reason for the holes.

Q Did anyone who was there know why they were in the cabinet?

A No.

Q Do you know who put them in?

A No.

Q Did there come a time when you inquired of Boeing as to why those holes were there?

A Yes.

Q At a later date?

A Yes.

Q Do you recall when that was?

A Well, there was a Boeing representative there at Rio too. I inquired first of him and then probably the latter part of August on my return I inquired to the Boeing Company.

Q Do you recall who you asked?

A I can't recall. I imagine I worked it through our liaison office there.

Q Was that Mr. Curtiss?

A Yes.

[123] Q Do you know who Mr. Curtiss was liaising with at Boeing? Would it have been Mr. Hogue?

A He would be liaising with the project design groups.

Q Do you know who was in charge of the design group that would have had responsibility for the lavatories at this time?

A No, I don't.

Q Did you get an answer from Boeing?

A No.

Q They didn't know?

A I was never told.

Q And to this day you don't know why those holes are there?

A That's right.

\* \* \*

[139] Q The exhibit 4004.2 then goes on to request, "If such areas are in non-compliance with the provisions of

(4b)381(d), we wish to know (1) what extent they are in noncompliance, (2) what methods were used to determine such compliance, and (3) what corrective action is being taken by your office and Boeing to correct known deficiencies." As a result of that request, did you undertake to determine compliance of the lavatory waste container with 4(b)381(d)?

A The lavatories at that time were in compliance with the rules as based on the original certification. We had no reason to doubt that at that time. No finding had been made of any accident investigation to dispute that.

Q I'm sorry. I don't understand your answer. I don't think it is responsive. Let me restate it. As a result of the request in this letter, which I take it was directed to the attention of your group which is ANW-212, did you or someone in your group undertake to determine whether the lavatory waste [140] containers were in compliance with 4(b)381(d)?

A Yes.

Q And who did that? Who undertook that investigation?

A Myself.

Q Did you go back and review the initial certification basis for a finding of compliance on the part of the waste containers with the terms of 4(b)381(d)?

A No.

Q Can you tell me why not?

A I was unable to locate the original testing data.

Q You were unable at any place in the FAA system to locate that material?

A That is right. My feeling was to correct the problem that I felt existed at the time, which meant the plugging of the holes and sealing gaps.

Q Did you request Boeing to provide you with data they supplied to show compliance originally with 4(b)381(d) in the certification of the 707 lavatory waste containers?

A I believe I did.

Q I take it that Boeing failed to provide you with any such data?

A I did not see it. No.

[150] A [BY MR. NELSON] ... but the container either does or doesn't contain the fire. There is no in between.

BY MR. LENHART:

Q And if it doesn't contain fire, then it doesn't comply with 4(b)381(d) in your view?

A Yes, the rule does not say that you have to conduct any tests.

Q When you say "the rule," you mean 4(b)381(d) doesn't require any test to show compliance?

A No.

Q But to be type certificated, the lavatories on an aircraft must comply with that regulation?

A Yes.

[173] Q Did you find—were you able to identify the FAA employees, if any, who had been involved in the certification of the trash containers in the aft lavatories?

A I know I was unable to identify them.

Q And I take it that you also, again my best recollection of your testimony was that you said you wrote to Boeing and they were unable to provide you with any certification?

A I am not sure if I wrote to Boeing. It could have been Orly. I might add that Renton being in so close proximity to our office, we normally dealt with them on the phone but for Everett we often wrote letters because it was thirty miles away. But I'm not sure how that was handled.

Q But the end results was—

A But I did originally want to see what the original type design data looked like.

Q And they were unable to provide you with any?

A That's correct.

[351] Q Let me quote from paragraph 3 which reads, "The questionable holes in waste container walls appeared common to all lavatories, but, here again, lack of technical design data furnished by the lavatory vendor prevented accomplishment of any conformity inspection in this regard. It is my opinion, however, that odds are extremely small that any of the items observed were not of type design. At any rate, the waste container system design observed appeared unsatisfactory from a fire containment standpoint."

Directing your attention now to that last sentence, you stated "At any rate the waste container system design observed appeared unsatisfactory from a fire containment standpoint."

Can you explain to me what you meant by that?

\* \* \*

THE WITNESS: I believe that that particular configuration that I viewed in Rio appeared, in my estimation, not likely to contain fire.

[352] MR. LENHART:

Q When you use the words "appeared unsatisfactory," was that referring to the regulation regarding fire containment in towel containers?

\* \* \*

THE WITNESS: No. Without proper testing I couldn't say whether it was unsatisfactory or not.

Q You have noted here that it appeared unsatisfactory. Appeared unsatisfactory in what sense? That it wouldn't contain a fire?

A That it wouldn't contain a fire.

Q I take it the reason that that is significant is that the regulations discussed fire containment in towel disposal containers?

\* \* \*

[354] A It was my opinion that the configuration I observed appeared unsatisfactory from the fire containment standpoint in regard to that regulation.

Q Is that the reason for your comment on the last page of this document, Exhibit 26, which reads "Further, it was my opinion that we should consider redesign of the lavatory system per defective fire containment in the waste container compartments on all Boeing model aircraft as a mandatory requirement and Boeing will be so advised"?

A I believe that paragraph is referring to the items listed in item 4 concerning the meeting at Varig facility on August 20.

\* \* \*

[413] Q Is it your understanding that as an FAA engineer involved in the certification process that your responsibility in the process is to review the applicant's data to determine whether it complies with the applicable regulations, special conditions?

A Yes.

\* \* \*

[449] Q Do you understand that paragraph to make the manufacturing inspectors responsible for identifying

any detail design feature which does not appear to comply with the pertinent regulations?

\* \* \*

Q Let me ask the witness since he is the expert on it. To whom is this paragraph addressed?

A To a manufacturing inspector who is responsible for conducting the conformity inspection that I referred to before.

Q Is he an FAA employee?

A Yes.

Q Do you understand that as part of his inspection he is responsible for identifying detailed design features which do not appear to comply with pertinent regulations?

\* \* \*

[450] A According to this guidance material he is supposed to be alert for any detail features which do not appear to comply. Then he would point these out to the engineer.

Q This notes particular attention to clearances, tolerances, ventilation and so on which would be visually apparent to the inspector?

A As part of his inspection, yes.

Q I take it when we use the term "inspection" we are talking about an actual, visual inspection of a particular component or system or section of the aircraft.

A Yes.

Q Are all of the various components of the aircraft, including the lavatories, subject to—you called it conformity inspections?

A Yes.

Q Prior to type certification?

A Yes.

Q So that if a lavatory trash container had a [451] detailed design feature which did not comply with the pertinent regulations, it would be his responsibility to notify the involved engineer or engineering section?

A If he were aware of it, yes.

Q Such an inspector was required to pay particular attention to ventilation and tolerance and so on.

\* \* \*

Q Let me direct your attention to the second sentence which says "particular attention should be given to fits, tol-

erances, clearance, interference, ventilation, drainage and suitable provisions for inspection, servicing and maintenance."

A That's right. That is what it says.

Q Would you understand those terms to require that the manufacturing inspector pay particular attention to the lavatory trash containers?

A In my opinion he should have looked at all of this in his inspection, although here again, you should probably be talking to a manufacturer inspector.

[25] DEPOSITION OF ROCCO LIPPIS

Q [BY MR. LENHARD] Do your recall when you first became involved with the type certification of the 707 aircraft?

A [BY MR. LIPPIS] At the very beginning.

Q Do you recall your first introduction or how you became aware of the certification of the 707?

[26] A Well, they made an application for a type certification which was given to the office, and the usual procedure when we receive such an application is to have what we call a preliminary type board to discuss the project, the rules, anything involved.

Q Did you attend the first preliminary type board meeting?

A I'm sure I did.

Q And that would have been for the series 100 aircraft?

A Right.

Q And do you recall that the date of that would have been?

A I don't remember.

Q What would your function have been at that meeting, Mr. Lippis?

\* \* \*

THE WITNESS: Primarily to take a look at the structure, what they were going to do, how were they going to substantiate it.

\* \* \*

When I say substantiate, I mean prove that the structure will take the required loads—

\* \* \*

[30] Q Now, you've testified that it's your recollection that you attended the first preliminary type certification board meeting?

A Right.

Q At that time what were the responsibilities given to your unit in the certification process?

A First we had them described in as much detail as they could as to what they were building, what kind of material, how they were going to substantiate it; anything we could think of from the structural standpoint.

Q In what form does that submission take?

[31] A It's a general meeting where all of the—practically the whole Aircraft Engineering Division attends and all the top industry—or not industry, but in this case Boeing engineers and chief engineers and those responsible for the various parts of the airplane such as power plant, controls, landing gear, the whole airplane.

Q Does Boeing make a formal written submission at that meeting as to what it intends and how it intends to show compliance?

A They make quite a complete description, probably supplied us with a document of some kind. I don't remember what they did.

Q In your experience in this area, what form does that initial document from the manufacturer usually take? Does it have a title?

A It probably has, but I think it's just a description of what they're going to build and gives as much details as they have available.

Q Is the copy of that circulated to all of the various units and branches in the CAA?

A Yes.

Q And it was the Civil Aviation Agency at that time?

A Yes.

\* \* \*

#### [45] BY MR. LENHART:

Q Could you describe the division of functions between the engineers and the inspectors?

A The inspector's primary function was to check for conformity to the drawings.

Q When you say "check for conformity with the [46] drawings," would that have been a prototype or production model?

A Production and prototype.

Q Was he also charged with the responsibility to review the item that he was visually observing to see whether it complied with the applicable regulations?

A No.

Q Do you know whether that is the case today where the inspectors are so charged?

A No. It's the engineer that's charged with compliance with the regulation, like the one we were just looking at.

Q Do you know whether the functions of the inspectors have changed since this time until the present time in general, or are they the same?

A Generally they're the same.

[53] A No.

Q I think prior to the recess the question was pending concerning whether you or someone under your direction would have been involved in analyzing the lavatory trash containers from the point of view of the containment aspects of those containers.

\* \* \*

Q Let's limit it to the fire containment aspect of those.

A That was evaluated by somebody in my section. Are we talking about the 100 now or the 300?

Q Let's talk about the 100 now.

A Okay.

Q Let me direct you back to Exhibit 2 to Regulation 4b.381(d) which says:

"All the receptacles for used towels, papers, and waste shall be of fire-resistant material and shall [54] incorporate covers or other provisions for containing possible fires."

Do you recall whether someone in your section would have been reviewing data supplied by the applicant for compliance with that regulation?

A Yes.

Q Do you recall who it was?

A No, I don't.

Q Do you recall your reviewing any such data?

A No.

\* \* \*

Q At the time that we're talking about, the certification of the series 100 aircraft, were there employees at Boeing charged with the responsibility for reviewing Boeing data for compliance with the applicable regulations on behalf of the FAA?

A Are you talking about the DER system now?

Q I don't know whether they are called that, but was there something like that at this time?

A I'm pretty sure there was, yes, and our man responsible would work with him.

Q Now, when you say "would work with him," how would those responsibilities have been divided between them? Would the DER have undertaken an initial review of the data and then forwarded it on to your man in your group?

[55] A Possibly so. And then they would probably get together and evaluate any questionable items.

Q Who would decide what was a questionable item?

A FAA.

Q Your man would decide what was a questionable item?

A Yes.

Q And do you recall at the time we're talking about, that is the certification of the 100 series, how data was transmitted by a DER to the FAA engineer? Was there another specific form that it would be transmitted with?

A I don't recall that we had specific forms at that time. But the individuals would get together quite often, sit over a table, and go over the items in detail, especially the drawings.

Q What would be the nature of the data, for example with regard to the determination of compliance of the lavatory trash containers with 4b.381(d)—

A Might be analysis or actual test.

\* \* \*

[56] (The record was read.)

Q When you say "analysis," can you describe for me what that would involve?

A Well, all the materials are fire tested before they're put in an airplane, and if they meet the minimum requirements they're acceptable. And the minimum requirement would meet the special condition.

Q You mean the regulation?

A The regulation.

Q Would the analysis take the form of a letter from the DER to the FAA engineer?

A Letter or report.

Q Outlining his analysis?

A Right.

Q Would that be a visual analysis of an actual lavatory mockup of the trash container?

A Part of it would make reference to the drawings. At least the first stage is that someone reviews a drawing that Boeing has submitted.

\* \* \*

[65] Q So everything about the 707 was new at least in the 100 series?

A Right.

Q So that it would be your answer that at least the first time around they would have been out and viewed the aircraft?

A Right.

Q Do you know whether there were other tests undertaken to show compliance of the lavatory trash containers on the 100 series with for 4b.381(d)?

A I don't remember.

Q Who would have decided whether to require such tests? Would it necessarily have been in the regulations?

A It was in the regulation.

\* \* \*

[79] Q Moving on to the document which was marked earlier as Exhibit 3, the Minutes of the Pre-flight Type Certification Board Meeting for the 707-300 series, can you describe for me the number of meetings that would be held in the course of the certification of one of these series?

A Generally on a new model there are three main type board meetings. There is a preliminary meeting, a pre-flight board meeting, and a final type board meeting.

Now, the pre-flight board meeting, this indicates that supposedly everything's been substantiated [80] and the only thing that remains to be done are to conduct the flight tests.

But there are many other type board meetings that are held when a special problem comes up or there are problems or maybe there's been a big lag, we want to get together and get up to date on many items. So it isn't just limited to three. You could have as many as you want, as many as you would think necessary.

Q Would this be called interim type—?

A Interim type boards, right.

Q And this is not one that we're looking at the Minutes of? It's undertaken before actual flight tests are allowed on the aircraft?

A Not allowed. The manufacturer's been flying the aircraft for quite a bit.

Q But off—

A Before we get on board.

Q These are for official FAA flight tests?

A Right.

Q And what's the purpose of the pre-flight type certification board?

A Have you read through these?

Q I'm asking you in general what are they supposed to do?

A To discuss any problems that exist and if they need fixing, fix them before we'll take off.

Q Do they also as part of this insure that all of the conformance inspections have been done on the [81] aircraft that are going to be flight tested?

A Oh, sure, that's essential.

Q And as of the date of the pre-flight type certification board meeting, has the FAA signed off on the compliance of all of the various items on the aircraft other than those that are directly affected by flight testing?

A You mean from an inspection standpoint?

Q No. I mean from a compliance with the regulation standpoint.

A Yes. Before they fly the airplane, everything will be signed off.

Q So what's the purpose of the flight tests? What additional review is anticipated in the course of the flight test?

A In the course of the flight test?

Q Yes.

A Well, you mean why do we fly it?

Q That's right.

A To make damn sure it meets regulation, and it's quite a thorough program.

Q What you're telling me is that you do not only static review but you also do an in-flight review of the same items?

A Same items, and very thorough.

\* \* \*

[135] Q I see. So that all the regions would interpret the same regulation in the same way?

A Right.

Q Do you recall whether there were any FAA rules, policies or interpretations which applied to the regulation we've been looking at in Exhibit 2 which would be 4b.381(d)?

A No, I don't recall. I'm sure that we followed the rule as it's listed here.

Q And what did you understand by the intent of that rule, if you recall?

A I don't recall. That wasn't my detail. That was assigned to someone else.

Q So you wouldn't have gotten involved in trying to determine what the meaning of that regulation was?

A No.

Q I take it as a general rule an FAA engineer in the process of determining the applicant's compliance with the regulation first sits down and tries to figure out what the rule means?

A Right.

Q And after you've done that, assuming that the rule is not ambiguous, you then review the data supplied by the applicant itself?

A Right.

\* \* \*

[180] Q [BY MR. SMILEY]

Q So it would be your opinion, would it not, that that 707 certification file must still be in existence?

A Oh, I'm sure it's in existence. We never destroy them.

Q And not only is it in existence, but it is actively being used by somebody in the FAA?

\* \* \*

THE WITNESS: I'm not sure.

BY MR. SMILEY:

Q Okay. You spoke of the central file, Mr. [181] Lippis, as being a location somewhere in the area. Do you know what the address of that file is?

A No, I don't.

Q But it's your understanding that it's somewhere in the greater Los Angeles area?

A Yes.

Q I believe you testified, Mr. Lippis, that essentially your job did not change when the Federal Aviation Agency was created sometime in 1958?

A No.

Q "No" it didn't change, or "no" I'm wrong when I say it?

A No, it didn't change. My duties were the same.

Q Did you have before the creation of the Federal Aviation Agency in 1958 a position classification description?

A Yes.

Q And did that position classification description remain essentially the same when the agency came into being in 1958?

A I believe it did.

Q And then when the agency was done away with and the Federal Aviation Administration was substituted for it, did your duties nonetheless remain essentially the same.

A They did.

\* \* \*

[200] Q [BY MR. SMILEY] Why don't you read what has previously been marked as Exhibit 2 in this deposition, CAR 4b.381(d)?

A "All receptacles for used towels, papers, and waste shall be of fire-resistant material and shall incorporate covers or other provisions for containing possible fires."

Q Okay.

A That's completely clear.

Q Completely clear, isn't it?

A Yes.

Q And if a waste container did not or could not contain any possible fires, then it would not be in compliance with CAR 4b.381(d), would it?

A No.

#### [156] DEPOSITION OF ROLAND CURTISS

Q [BY MR. LENHART] My question: Do you specifically recall an FAA employee looking at the lavatories?

A [BY MR. CURTISS] Specifically recall, no.

Q But you did accompany them when they inspected the aircraft?

A [Nods affirmatively.]

\* \* \*

#### [93] DEPOSITION OF JACK BULMER

#### FURTHER EXAMINATION

BY MR. LENHART:

Q Do you have any recollection today, Mr. Bulmer, of what you did in the process of approving the 707 lavatory trash containers for compliance with 4b.381(d)?

A [BY MR. BULMER] No.

Q You don't have any recollection of reviewing drawings or data submitted by Boeing?

A No, I don't.

Q Do you have any recollection at all of inspecting the lavatory trash containers?

A No.

Q You said that you agree with Mr. Lippis's description that you had the primary responsibility for determining compliance of the lavatory trash containers with CAR 4b.381(d).

Do you know today whether compliance of the 707 lavatory containers with CAR 4b.381(d) was determined by a DER or by yourself?

A No.

Q Do you recall anything about your work on the lavatories in the 707 aircraft?

A No.

Q Do you recall anything about your work in any other areas on the 707?

A No.

[16] DEPOSITION OF HAROLD TANKE

Q [BY MR. LENHART:] Mr. Tanke, you're appearing here today pursuant to a subpoena that was served on you; is that correct?

A [BY MR. TANKE] Yes.

Q And that subpoena had attached to it a list of categories of documents which you were requested to bring with you?

A Yes.

Q Do you have any of those in your possession?

A None.

Q All of the records that you would have generated or used when you were with the FAA remained there when you retired?

A That is correct.

MR. LENHART: I'd like to have the subpoena and the attached request for documents marked as Exhibit 1 to the Tanke deposition.

(Plaintiff's Exhibit No. 1 was marked for identification.)

BY MR. LENHART:

Q When you started with the FAA in 1958 in the Western Region, what did you begin to work on?

A The Convair 880.

Q Did you have any involvement in the 707 program?

A None.

RECORD OF VISIT TO RIO de JANEIRO,  
BRAZIL—Aug. 16 thru Aug. 20/73  
R.W. NELSON, ANW-212

VARIG 707-345C Accident—Orly, Paris, July 11/73

PURPOSE: To physically examine interior of sister ship of subject aircraft, including area of suspected ignition source, to confirm that no modifications to aircraft systems beyond that for which originally certificated or refurbished per Boeing Service Bulletin No. 3014 (New Look Interior) had been accomplished. Further, to evaluate extent of bulletin accomplishment per interior materials and determine flammability characteristics of all materials installed for the refurbishment—Boeing and Varig.

1. *Meeting at Varig facility—August 16/73*

The original plan was to inspect the torn down interior, this date, to ascertain that no wiring or hydraulics had been subjected to any modification. However, it was reported that the particular aircraft scheduled for this inspection was presently grounded in Los Angeles awaiting necessary engine change. Aircraft was on scheduled run from Tokyo to Rio, via Los Angeles and it was anticipated that the aircraft would be available for this inspection on Sunday, August 19. A meeting was scheduled this date, in lieu thereof, to discuss highlights of the accident, flammability requirements, and establish a plan of attack for the time available here in Rio.

The following participants were present:

F. Monako, (FAA (IFC-RIO)—R. Kapustin, NTSB—L. Gueritot, French authority—J. Hall, TBC—P. Traynor, TBC—H. Morsch, Varig—L. Martins, Varig—Maj. Carlos, Brasil authority. R. Nelson, FAA.

Highlights of the accident were discussed. Flammability requirements for the kit refurbishment materials were mentioned, and Varig discussed standards used for testing of materials that were exceptions to TBC recommenda-

tions. The Varig test specification documentation referred to CAR 4b and FAR 25 interior requirements, and revealed that all materials that were exceptions had been tested to the pertinent second level flammability requirements contained in FAR 25.853 amendments 15 and 17.

I proposed that all materials used throughout the Varig interior should be subjected to flammability tests conducted by TBC under FAA jurisdiction, with all interested parties concerned, such as Varig, the French authority, and NTSB present, as desired. Those tests would be conducted to the pertinent flammability test criteria required by certification. It was emphasized that this would be the only practical way to go with one agency testing all materials to the specified requirements, rather than various tests conducted and not necessarily to the certification requirements. The proposal seemed to meet favorable response. The NTSB mentioned this would be entirely up to the FAA and the French, who had earlier requested test specimens from Varig for burn testing. NTSC mentioned certain areas of concern we should be considering for the forthcoming inspection, which focused primarily on the lavatory system and fire containment therein. It was agreed by Varig that the interior would be modified in such way that the interior wall panels and ceiling would be removed from a station forward of the aft entry doors extending aft to the pressure bulkhead, time revealing all pertinent wire bundles and miscellaneous plumbing, as exposed. In addition, lavatories would be broken down and removed as we desired. Also, all aft galleys would be removed. It was decided to inspect various other 707 models the following day to ascertain condition of various waste containers particularly on those aircraft immediately returning from rather long, extended trips such as from New York, Los Angeles, Paris, etc.

The Varig modification system was discussed and Varig mentioned that any modification to this aircraft was covered by a D.T. form similar to an engineering order. These forms were located in Porto Alegre and not available, however, Varig stated that they would supply pertinent forms to FAA, NTSB, and French as desired. Unfortunately, this material will have to be deciphered as they are written in

Portuguese. Boeing offered to supply all pertinent Service Bulletins. Varig mentioned the fact, that since the accident they had installed new placards in all lavatories requiring NO SMOKING and that they had disconnected the heater in the waste container compartment, as well as removed the circuit breaker. They plan on installing an additional ash tray on the counter adjacent to the sink and more readily discernable than the existing one. It is felt this may discourage the occupants from throwing cigarette butts and materials down the trash chute.

*2. Inspection At Varig Maintenance facility—Aug. 17/78*

We inspected the other sister ship, which was preparing for a trip to Rome and was being converted from a mixed passenger configuration to all passenger. Noted in the aft right hand lavatory, towels were plugging the trash chute and heater baffle. There had been an earlier question as to where the portable oxygen bottles were located in the Varig configurations. It was observed on this particular aircraft, that there were six such bottles, mounted vertically (in the aft left hand coat closet) adjacent to the lavatories. It was learned there were four such bottles on the ill fated aircraft. This was the original location, as Varig had relocated the bottles from another position forward and had returned them to this position just prior to the accident. It was noticed in the lavatories that the heater installed just below the sink in the waste container compartment tended to become somewhat of a catchall for objects such as toothbrushes, metal toothpaste containers, paper towels, plastic combs and containers. On being dropped into the container, they would become wedged in between the heater and the heater guard panel. It was also observed in the waste container area of most lavatories that there were numerous holes through the vertical panels between compartments leading to other compartments, and in some cases to the aircraft skin. This created an interesting revelation and it was not clear how the waste containers could possibly contain fire, as required by CAR 4b.381(d) and FAR 25.853(d).

We inspected two Varig 707 and the condition seemed to be very similar in all cases, what with towels plugging

trash chutes and miscellaneous debris wedged between the heater and the heater guard as previously mentioned. In addition, we boarded a PAA 707, which was there on a quick turn around, and observed the same situation in the aft lavatories, one of which was jammed with paper in the trash chute.

### *3. Inspection of Varig 707-345C (PP-JX)*

With portions of the aft ceiling and wall paneling removed and aft galleys and lavatories removed, all exposed wiring and plumbing were inspected as well as lavatories. However, due to lack of type design data, we were unable to ascertain whether it was original equipment. Further, due to lack of modification records, it was not known whether any modifications had been accomplished. The questionable holes in waste container walls appeared common to all lavatories, but, here again, lack of technical design data furnished by the lavatory vendor prevented accomplishment of any conformity inspection in this regard. It is my opinion, however, that odds are extremely small that any of the items observed were not of type design. At any rate, the waste container system design observed appeared unsatisfactory from a fire containment standpoint. In addition, considerable dust and lint particles were observed in and around wire terminals. This included the shaver outlet connection, which was subject to a recent AD action. It is considered that such a collection of foreign matters appears hazardous. All critical areas and exposed materials were photographed and copies will be forthcoming on development by Varig.

### *4. Meeting at Varig facility on August 20/73*

Participants at this meeting were as follows:

R. Nelson (FAA)—R. Kapustin, (NTSB)—L. Gueritot, French authority—L. Martins, Varig—H. Pisco, Varig—H. Morsch, Varig—T. Traynor, TBC—J. Hall, TBC—O. Schmiedt, Varig.

The results of the inspection were presented to Varig and the NTSB came up with some recommendations to FAA and Boeing as follows:

1. Investigate smoke evacuation procedures.

2. Investigate feasibility of stewards or stewardesses conducting physical checks in the lavatories for smoking.
3. Investigate possibility of installing smoke masks in lavatories.
4. Investigate feasibility of installing smoke detectors in lavatories.
5. Consider redesign of lavatory waste container systems, per fire containment requirements of CAR 4b.381(d) for this 707.
6. Regarding heaters in waste container compartments, investigate temperatures and determine whether presence of wet towels on thermo couples might not be allowing higher heater temperatures to exist.
7. Consider redesign of heater guards in waste container compartments.
8. Are the means of extracting smoke adequate?

Regarding those recommendations, the NTSB was advised that action had been previously initiated on all items, except the better thermo coupling question with TBC.

Furthermore, it was stated that on return from Rio, it was my intention to press TBC for immediate answers. Further, it was my opinion that we should consider redesign of the lavatory system per defective fire containment in the waste container compartments on all Boeing model aircraft as a mandatory requirement, and Boeing will be so advised.

It was mentioned by the NTSB and French, that suspected area of ignition source was the aft lavatories and specifically the towel waste container.

R. W. Nelson

Crashworthiness Engineer, ANW-212

ANW-212:RNELSON: sp: 767-2516:8/23/73

file: 8020/707

**AFFIDAVIT OF FREDERICO J. RITTER**

FREDERICO J. RITTER, being duly sworn, deposes and says:

1. I am Manager of VARIG Airlines' ("VARIG") Engineering and Maintenance Base located at Porto Alegre, Brasil, where all of VARIG'S heavy maintenance, overhauls and engineering is conducted. I report directly to VARIG'S Director of Maintenance, Mr. Goetz, and am number two in VARIG'S Maintenance Department. I am an aeronautical engineer and have been with VARIG for ten years. I have personal knowledge of the matters stated herein except for those matters stated on information and belief, which matters I believe to be true, and I make this affidavit in opposition to the Motion for Summary Judgment filed by THE BOEING COMPANY (hereinafter "BOEING") in Civil Action No. C 76-169 M, W.D. Washington, entitled "*VARIG Airlines v. THE BOEING COMPANY and WEBER AIRCRAFT CORPORATION.*"

2. VARIG operates a maintenance, repair and overhaul facility in Porto Alegre, Brasil, which has been certified by the United States Federal Aviation Administration (hereinafter "FAA") as a "Certified U.S. FAA Repair Station." This means that United States "Flag" Airlines like Pan American World Airways and Braniff International can have us do contract maintenance and/or overhaul work on their aircraft. As manager, I am in charge of this base. In the course of my work I am fully familiar with the practices of the airlines with regard to maintenance, overhaul and warranties and I am also familiar with the customs and practices of the airlines and the major aircraft manufacturers with regard to the purchase and sale of new and used aircraft and the product support for these aircraft provided by the manufacturers to the airlines. I have been principally involved for VARIG in the purchase of used jet aircraft equipment from other airlines, and I am involved with the technical aspects of the purchase of new aircraft from aircraft manufacturers, including BOEING. I was involved in the technical aspects of the purchase of two "new-used" BOEING 707 aircraft—PP-VJY and PP-VJZ—from SEABOARD WORLD AIRWAYS, INC. (hereinafter "SEA-

BOARD") in 1968. PP-VJZ was totally destroyed when it crashed and burned near Paris, France, on July 11, 1973.

3. When an airline like VARIG purchases an aircraft new from a manufacturer like BOEING, there is a Detailed Specification Document (a "D.S.D.") attached to the purchase agreement as an EXHIBIT. The D.S.D. for PP-VJZ is listed as EXHIBIT A to the BOEING-SEABOARD Purchase Agreement (No. 271) dated June 2, 1967. This D.S.D. is the technical document by which the aircraft is built by the manufacturer. The idea behind the D.S.D., from the airline's standpoint, is that everything in it has been approved by the U.S. FAA. When a manufacturer like BOEING has a "type certificate" for an aircraft model, such as the BOEING 707, VARIG relies upon the fact that BOEING has completed all of the tests and other requirements laid down by the U.S. FAA, in obtaining that type certificate. VARIG neither seeks nor reviews the mass of detailed design drawings, data, tests and other documentation submitted by BOEING to the FAA when applying for such a type certificate. Such a review is completely beyond the scope and purpose of VARIG's engineering department. Similarly, when a manufacturer like BOEING has completed an aircraft which has been built pursuant to a type certificate, such as PP-VJZ, the U.S. FAA physically inspects that aircraft to see that it complies with the U.S. FAA'S Federal Air Regulations ("FAR's") before issuing the individual aircraft an "airworthiness certificate." When the airline takes delivery of the aircraft it already has an airworthiness certificate issued by the U.S. FAA and the airline just reviews the D.S.D., knowing that each item on the D.S.D., has already been approved and inspected by the U.S. FAA. The airline does not go behind these two certificates to review the documentation submitted by the manufacturer to show compliance with the regulations. Neither does the Brasilian Government when the aircraft is registered in Brasil. VARIG relies on BOEING or the FAA to tell it the full significance of any problems which may have arisen in connection with the type certification process or any significant in-service problems which have occurred to other operators following type certification. In

the case of PP-VJZ, SEABOARD took delivery of the aircraft from BOEING and did the review of the D.S.D. In summary, the airline purchases an aircraft which it assumes was certificated to a certain level of airworthiness. Thereafter, the job of the airline's engineering and maintenance department is to *Maintain* that level of airworthiness and not allow it to degrade.

4. After an airline like VARIG takes delivery of an aircraft from the manufacturer it relies heavily upon the manufacturer for information concerning in-service problems encountered by other operators of the same type aircraft, and for the remedies, or "fixes," for these problems. The BOEING-SEABOARD Purchase Agreement states in Article 15(b) that BOEING agrees to maintain a service organization in Seattle, Washington, to handle the Buyer's requirements for technical advisory assistance "for a period commencing with the date of delivery of the first Aircraft and continuing as long as at least ten (10) aircraft of the type purchased hereunder are regularly operated in scheduled commercial air transport service. . . ." The Air Transport Association of America ("A.T.A."), which is composed of U.S. domestic scheduled air carriers, has developed with the aircraft manufacturers a document which standardizes how technical data will be presented to the airlines by the manufacturers. This document is known as "A.T.A. Specification No. 100" and is used throughout the aviation industry both by U.S. domestic and foreign airlines. Chapter 207 of "Spec. 100" deals with the manner in which aircraft manufacturers, such as BOEING, will inform operators, such as VARIG, of these in-service problems. A true copy of pages 2-7-0 through 2-7-2 of A.T.A. Spec. 100 are attached hereto as EXHIBIT A. They indicate that the only document which a manufacturer shall use to notify the airlines of "modifications which affect performance, improve reliability, increase safety of operation, provide economy or facilitate maintenance or operation" shall be the "Service Bulletin." The A.T.A. Spec. 100 sets forth three types of Service Bulletins, depending upon the degree of urgency connected with the modification. These are: (1) Campaign Wire, (2) Alert Service Bulletin, and (3) Standard Service

Bulletins. Campaign Wires involve "matters of extreme urgency," and are transmitted by telegraph, cable or telephone. Alert Service Bulletins ("ASB's") are issued "on all matters requiring the urgent attention of the operator and shall generally be limited to items affecting safety." ASB's are prepared on light blue paper to distinguish them from Standard Service Bulletins, which are issued on white paper and which do not contain any compliance recommendations. VARIG relies heavily upon this information and these remedies from the manufacturer, because a foreign airline cannot possibly compete with the manufacturer's resources and sources of information available to it. For example, a foreign operator operating only three aircraft of one type would have to experience personally all of the possible failure modes concerning that aircraft type unless it had available to it the information concerning in-service problems sent to the manufacturer by all operators of that type aircraft. Even then, the operator would not be able to assess the significances of the failure mode it had experienced without access to the mass of data available to the manufacturer as to what result that failure mode could have on the aircraft. The manufacturer's information on in-service problems comes from reports sent by the operators to the manufacturer and/or the FAA, and from reports sent to it by its own Field Service Representatives stationed with the airline operators. BOEING has an extensive system of these field service representatives stationed with operators of BOEING aircraft throughout the world.

5. With regard to warranties on new aircraft given by a manufacturer, these are an established part of the custom and practice of the airline-aircraft manufacturing industry. Warranties are a big part of a manufacturer's sales promotion when selling a new aircraft. Each manufacturer stresses the reasonable manner in which the airline's warranty claims will be processed by it. It would be totally unrealistic to think of buying a new plane without such warranties, and I know of no instance in which that has been done by VARIG or any other airline. It is also customary to take an assignment of these warranties when purchasing a used aircraft from another airline. This is true

even though in most instances the warranties on the used aircraft have expired. The assignment is usually given because spare parts may still have warranties on them. The purchase of PP-VJZ from SEABOARD was unusual in that it involved the purchase of a "new-used" aircraft which still had a substantial warranty period to run.

6. In 1967 when VARIG became interested in buying additional long-range BOEING 707's (the model 300C series) this type of aircraft was very difficult to find. There were many used 707's and DC-8's on the market, but not many of the higher-performance, long-range 300C model BOEING 707's. Since this was the model which VARIG needed for its international routes, we became very interested when we learned that SEABOARD had purchased three of them from BOEING but had decided instead to use "stretched" DC-8's. As to 707-300C's, it was definitely a 'seller's market' in 1967-68.

Dated: November , 1976.

/s/

FREDERICO J. RITTER

**CHECK LIST  
INTERIOR ARRANGEMENTS**

CAR 4b	CAM	Check For
		Installation Dwgs-Schematics
.350(e)		Door separating crew/passenger comp't
.350(f)		Lock on separating door
.356(b)	-1 to -4	Safeguard against inadvertent opening Openable from either side
	-3	—without power —with occupant crowding Locate and open in dark
.356(d)		Protection of passengers from propeller
.356(c)	-5	Visual inspection outward opening doors
	-6	Visual signal doors locked
.357		Door louvers closeable by crew
.358(c)	-1	Seats, berths, belts approved-TSO
.358(b)(1)		Protection from head injury by: 1—Shoulder harness & belt, or 2—Belt, plus elimination injurious objects, or 3—Belt and cushioned head support
.358(b)(2)		Hand holds along aisle
.358(b)(3)		Projecting objects padded
.358(b)(4)		Berth and boards, corners, protuberances
.358(b)(5)		Flight crew shoulder harness provisions
.359		Cargo/Baggage comp't limit placards —tie down provisions —protect crew/pass. from injury
.362		Separate compartments Curtains or doors open for TO/L
.362(a)	-1	Openable from inside and outside, or —close proximity to passenger exits
.362(b)	-2	Proper size, slope, location
.362(c)	-3	Number and Type per table
.362(d)		One Type III above water line/side One exit above water line/35 pass
.362(e)	-4	Unobstructed minimum opening

		Opening means simple and obvious Openable inside and out Visual inspection means, if open outwards Assist devices for exits 6' from ground Functional test of emergency exits
.362(f)	-5	Conspicuous marking of location, access, operation Operating instr. inside and out Emergency lights installed and demon. —unobstructed by berths, curtains
.362(g)	-6	Passageway minimum 20" wide, and demon. -unobstructed during TO/L Assist space at door type exits
.362(h)		Aisles width 15" to 26" & 20" above
.380(a)	-2	Approved hand fire extinguishers
(c)	-1	Protective breathing equipment
.331(a)&(b)		Materials flame, flash, & fire resist.
.381(c)		Self contained ash trays
.381(d)		Fire resistant, covered waste containers
.381(e)	-1	Crew portable fire extinguisher
.381(f)	-1	Number & type of pass. comp't exting.
.605(a)		Approved seats (See 4b.358)
(b)		Approved belts (See 4b.358 & .643)
(c)		Approved port. fire exting. (See .381 & .641)
.641		Hand fire exting. (See 4b.381, .605)
.643		Approved safety belts (See .358, .605)
.644		Pilot or co-pilot operated belt sign
.645(a)		Capacity-no. of pass. plus loss of 1 raft
(c)		Long range signalling device
(d)		Approved type life jackets
.646		Equipment stowage accessible and obvious Stowage marked conspicuously
.646(a)		Slides, chutes, ropes, stowed at exit
.646(b)(c)		Stowage near exit
.646(d)		Life preservers within easy reach of occupant
.739(d)		Fire exting., signalling equip., etc. location mark.

THE UNITED STATES OF AMERICA  
FEDERAL AVIATION AGENCY  
TYPE CERTIFICATE  
Number 4A26

This certificate issued to The Boeing Company certifies that the type design for the following product with the operating limitations and condition therefore as specified in the Civil Air Regulations and the Type Certificate Data Sheet; meets the airworthiness requirements of Part 4b of the Civil Air Regulations:

Model 707-300 Series  
Model 707-400 Series  
Model 707-300B Series  
Model 707-300C Series

This certificate and the Type Certificate Data Sheet which is a part hereof shall remain in effect until surrendered, suspended revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Agency.

May 15, 1956—Model 707-300 Series  
—Model 707-400 Series  
January 12, 1961—Model 707-300B Series  
Date of application: December 7, 1961—Model 707-300C Series  
Date of issuance: July 15, 1959—Model 707-300 Series  
February 12, 1960—Model 707-400 Series  
May 31, 1962—Model 707-300B Series  
April 30, 1963—Model 707-300C Series

By direction of the Administrator

/s/

CHARLES R. HAWKS  
*Chief, Engineering & Manufacturing Branch*

This certificate may be transferred if endorsed as provided on the reverse hereof.

UNITED STATES DISTRICT COURT  
CENTRAL DISTRICT OF CALIFORNIA

Case No. CV-76-0187-WPG  
Filed: Jan. 20, 1981

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VARIG AIRLINES

S. A. EMPRESA DE VIACAO AEREA RIO GRANDENSE  
(VARIG AIRLINES), PLAINTIFF,

v.

THE UNITED STATES OF AMERICA, DEFENDANT.

**VARIG'S MOTION TO STRIKE THE AFFIDAVITS OF  
CECILE HATFIELD AND MELVIN CRAIG BEARD**

DATE OF HEARING: Monday, February 17, 1981

TIME: 10:00 a.m.

Plaintiff S. A. EMPRESA DE VIACAO AEREA RIO GRANDENSE ("VARIG") moves this Court, pursuant to Rules 6(d) and 56(e) of the Federal Rules of Civil Procedure, for an order striking in their entirety the affidavits of Cecile Hatfield and Melvin Craig Beard, filed in support of the UNITED STATES' motion for summary judgment, on the grounds (1) that the affidavits were not filed with the motion, as required by Rule 6(d); and (2) that paragraphs 2 through 15 of the Beard affidavit and sentence 2 of paragraphs 3 of the Hatfield affidavit are not made on personal

knowledge, do not set forth facts which would be admissible in evidence, and do not affirmatively show that the affiant is competent to testify to the matters stated herein. Copies of the affidavits are attached as EXHIBITS A and B to this motion.

This motion is based upon VARIG's Memorandum of Points and Authorities filed in support of this motion and all other papers and pleadings filed in this action. VARIG does not request oral argument on this motion.

Dated: January 16, 1981.

UNITED STATES DISTRICT COURT  
CENTRAL DISTRICT OF CALIFORNIA

Civil Action No. CV 76-0187-WPG

S. A. EMPRESA DE VIACAO AEREA RIO GRANDENSE  
(VARIG AIRLINES), PLAINTIFF,

v.

THE UNITED STATES OF AMERICA, DEFENDANT

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CECILE HATFIELD, ESQ.  
Trial Attorney  
Torts Branch, Civil Division  
U.S. Department of Justice  
P.O. Box 14271  
Washington, D.C. 20044  
Attorneys for Defendant  
United States of America*

AFFIDAVIT OF CECILE HATFIELD

I, CECILE HATFIELD, being duly sworn, hereby affirm:

1. I am an attorney at law duly licensed to practice in the Federal Courts. I am one of the attorneys for the Defendant, United States of America, charged with the responsibility of defending this lawsuit.

2. This Affidavit is submitted in support of the United States' Reply Memorandum filed in opposition to VARIG's Opposition to the United States' Motion For Summary Judgement.

3. I have personally reviewed all of the deposition transcripts and can state that the pages included are true and accurate excerpts from these depositions. I have also reviewed the Affidavit of Mr. Craig Beard and state upon information and belief that it is true and correct.

/s/

CECILE HATFIELD

UNITED STATES v. UNITED SCOTISH INS. Co.,  
No. 82-1350

Date	Filings—Proceedings
5-11-70	Fld Federal Tort Claims Purs to 28 USC 2675 et seq., Compt for damges for wrongful death. Issd Summons MADE JS-5 CARD.
5-18-70	Fld return on service of writ as to Dorothy Cutler on 5/15/70
7-13-70	Fld Ex Parte Mot for extension of time to plead, and ord thereon; Ord Deft shall have to and includign 9/12/70 within which to answer. (S)
7-13-70	Fld affid of service by mail of Ex Parte Mot.
9-14-70	Fld ANSWER to complt by Deft.
9-15-70	Fld notice of pre-trial hearing calendared for 11-27-70 at 2pm.
10-22-70	Fld notice to take deposition upon oral examination, with affid of service, of Ivan R. Stracener at San Francisco, Calif. on 12/1/70
11-6-70	Fld notice of taking deposition upon oral examination, at 10:00 o'clock A.M. on 12/4/70 in San Diego, with affid of service.
11-9-70	Fld notice to take deposition upon oral examination of Mr. Ivan Stracener at Oakland Airport on 12/1/70, and affid of service.
11-9-70	Fld notice to withdraw subpna issd on 10/21/70
11-12-70	Fld return on Dep Subpoena as to Frank W. Schossow, Jr. on 11/9/70
11-17-70	Ent ord on court's own mot, pre-trial is cont from 11/27/70 to 12/11/70 at 2pm. (S)
12-11-70	Ent ord pretrial cont to 4-26-71 at 10am. (S)
12-14-70	Fld stipulation for continuance of pre-trial hrg to 4-30-71 at 2pm. (S)
2-1-71	Fld order transferring case under local rule 2 to calendar of Judge Powell. (S) (Powell)
2-26-71	Fld notice of pretrial conference on 3/3/71 at 3:40 p.m. (Powell)
3-3-71	Ent ord cause held pending decision as to consolidation of case with other pending cases. (Powell)

- 4-23-71 Fld plntf's notice to take deposition upon oral examination of Ivan R. Stracener of Oakland, California. Issd c.c. of Notice to take deposition.
- 5-27-71 Fld order transferring case under local rule 2 to the calendar of Judge J. CLIFFORD WALLACE. (POWELL) (WALLACE)
- 1-11-72 Fld cy of ord of Judicial Panel on Multidistrict Litigation transferring case to No. Dist. of Texas & assigned to Judge Robert M. Hill for coordinated or consolidated pretrial proceedings purs 28 USC 1407. Mld c.c. docket sheet & original file to Clerk, US Dist. Ct., No. Dist. of Texas, Dallas, Texas.
- 1-18-72 Fld c.c. opinion and order of Judicial Panel on Multidistrict Litigation directing trans of case to N. Dist of Texas, which was sent on 1-11-72  
MADE JS-6 CARD Ent 1-18-72
- 5-2-74 Fld c.c. ord trans case from Multidistrict Litigation No. 80 Civil Action No. CA-3-5435-D, back to Southern Dist of Calif for fur proceedings including trial on the merits. (ROBERT M. HILL) T/W c.c. of their docket sheet and orig documents from our file. MADE JS-5 reopening case.
- 5-30-74 Fld notice of P/T hrng on 7-26-74 at 9am.
- 7-19-74 Fld Pltf's P/T memo of contentions of fact and law. T/W List of Pltf's proposed witnesses
- 7-25-74 Fld deposition of Charles H. McMillan taken 2-5-73  
Fld volume I & II of deposition of Ivan R. Stracener taken 5-5-71  
Fld c.c. of order of transmittal from Northern Dist of Texas.
- 7-25-74 Fld deposition of Gerald William Talles taken 4-19-72
- 7-26-74 PRE-TRIAL HRNG-Ent ord P/T ord to be filed and cont to 12-10-74 at 9:30 am for trial. (E)
- 7-30-74 Fld deposition of Virgil A. Hill taken 2-5-73  
Fld deposition of Arthur Harr taken 4-20-72  
Fld deposition of Paul D. Porter taken 4-20-72  
Fld transcript of proceedings of M.D.L. Docket No 80 ALL CASES

- 9-4-74 LODGED Pre-Trial Conference Order, Sent to Judge Enright.
- 9-18-74 Fld Pre-Trial conference order. (E)
- 11-6-74 Fld stipulation that the trial be set for 12-3-74 at 9am. (E)
- 11-18-74 Fld motion of the United States to add to the witness list in pretrial conference order
- 6-30-74 Fld Deposition of Douglas L. Coppinger taken 6-22-72 in Dallas Texas
- 12-3-74 HRNG MOTS Ent ord trial cont'd to 1-28-75 at 9am.
- 1-24-75 Fld substitution of witnesses in P/T ord; subs Al Young for Keith Blythe subs Gary Killian for Fred Schlesy; Subs Paul Gibson for Paul Norton (E)
- 1-24-75 HRNG MOTS—Ent rod trial cont'd to 1-29-75 at 9:30 am. (E)
- 1-27-75 Fld motion to add witness to witnesses of pretrial conference list.
- 1-30-75 Fld order for taking of depositions, and order shortening time.  
Depositions of Richard Mayne; Lieutenant W. Butt; H. Skagg and Le Roy Wolever, M.D. may be taken on 2-3-75 at 2pm in Las Vegas, Nevada; Fur ord time for service of subpoenas may be shortened to six hours. (E)
- 1-30-75 Fld order RE service of subpoenas by any person who is not a party to the within action (E)
- 1-30-75 Fld Trial memo and statement of facts, by Deft USA
- 1-30-75 Fld affid of Lee M. Woodland; James H. Miller; Lee M Woodland and James H. Miller.
- 1-29-75 COURT TRIAL; Swore wits & fld exhs; Ent ord cont to 1-30-75 at 9am (E)
- 1-30-75 FUR COURT TRIAL Swore wits & fld exhs; Ent ord cont to 1-31-75 (E)
- 1-31-75 FUR COURT TRIAL—Swore wits & fld exhs; Ent ord cont to 2-4-75 at 9:30a.m. (E)
- 2-4-75 FURTH COURT TRIAL—Ent ord swore wits, fld exhibits; Ord cont to 2-5-75 @ 9:30 for furth Trial. (E)

- 2-5-75      FURTH COURT TRIAL—Ent ord swore wits, fld exhibits, Ord cont to 2-6-75 @ 9:30 for Furth trial. (E)
- 2-6-75      FURTH COURT TRIAL—Swores wits & Fld exhs; Ent ord cont to 3-11-75 at 9:30am. (E)
- 3-11-75      FUR COURT TRIAL—Wore wits & fld exhs; Ent ord cont to 3-12-75 at 9am.
- 3-12-75      FUR COURT TRIAL—Swores wits & fld exhs; Ent ord cont to 3-13-75 at 9am. (E)
- 3-13-75      FUR COURT TRIAL—Swores wits & fld exhs; Ent ord cont to 3-14-75 at 9:30am (E)
- 3-14-75      FUR COURT TRIAL—Swores wits & fld exhs; Ent ord cont to 3-18-75 at 9:30am (E)
- 3-18-75      FUR COURT TRIAL/Swores wits & fld exhs; Ent ord cont to 3-19-75 at 9:30 am Def's mot for summary judgment—denied. (E)
- 3-20-75      Fld brief of the U.S. in response to pltfs allegations concerning federal aviation regulations
- 3-19-75      FUR COURT TRIAL—Swores wits & fld exhs; Ent ord cont to 3-20-75 at 9:30am. (E)
- 3-20-75      FUR COURT TRIAL—Swores wits & fld exhs; Ent ord cont to 3-25-75 at 9:30am (E)
- 3-25-75      FUR COURT TRIAL—Swores wits & fld exhs; Ent ord cont to 3-27-75 at 9:30am. (E)
- 3-27-75      FUR COURT TRIAL—Swores wits & fld exhs; Ent ord cont to 4-2-75 at 9:30am (E)
- 4-2-75      FUR COURT TRIAL—Swores wits & fld exhs; Judgment for Pltf; Ent ord findings etc and judgment to be prepared by Pltf; cont to 4-11-75 at 8:45 for P/T proceedings. (E)
- 4-11-75      P/T HRNG—Following Cert Trial ent ord cont'd to 5-28-75 @ 9:30 a.m. for further Crt. Trial re: damages. (E)
- 4-20-75      MOTS—Ente ord cause cont'd to 7-8-75 @ 9:30 a.m. for Crt. Trial (E)
- 6-3-75      Fld deft's supplemental interrogatories t/w affid of svc thereto.  
Fld request to produce t/w affidt of svc thereto.
- 7-7-75      Fld pluf CEARLY's—ANSWERS to supplemental interrogatories t/w affids of svc by mai.

- 7-7-75 Fld brief of USA on wrongful death damages t/w certificate of svc thereto.
- 7-10-75 LOD deft's ORD re discovery
- 7-9-75 MOTS—Ent ord con'd to 9-10-75 @ 9:30 a.m. for Further Trial re damage. Not to require ANSWERS to specific inquiries—GRANTED. Deft [illegible] ORD. (E)
- 7-16-75 Fld deft's ORD re Discovery that deft's interrogatories, fld 6-3-75, are to be answered & fld NLT 8-8-75; that the documents requested in deft's request to produce, fld 6-3-75, are to be produced as requested on or before 8-8-75. (E) t/w affidt of svc by mail thereto.
- 7-30-75 LODGED pltfs. Findings of Fact & Conclusions of Law.
- 8-13-75 Fld deft's NOT OF MOT & mot for New Trial, or in alternative, for AMENDMENT Of Judgmnt calendared for 9-8-75 @ 10:30 a.m. Fld MEMO in support thereof t/w affidt of svc thereto.
- 9-8-75 Fld pltfs—B/As in opposition to deft's mot for New Trial or Amendment of Judgmnt t/w affidt of svc by mail thereto.
- Fld U.S.'s Objections to pltfs' proposed Findings of Fact & Conclusions of Law t/w affidt of svc by mail.
- 9-8-75 MOTS—Ent ord hrng mot for New Trial—DENIED; cont'd to 10-15-75 @ 9:30 a.m. (E)
- 9-11-75 Fld Findings of Fact & Conclusions of Law. (E)
- 10-14-75 Fld pltfs—MEMO of P/As on Choice of Laws t/w affidt of svc by mail.
- 10-15-75 MOTS—Ent ord Trial cont'd to 12-10-75 @ 9:30 a.m. (E)
- 11-4-75 Fld U.S.' Response to pltfs' MEMO of P/As on Choice of Laws t/w certificate of svc theeto.
- 12-10-75 FUR COURT TRIAL—Swore wits, fld exhibits. Ent ord cont'd for further Crt Trial to 12-11-75 @ 9 a.m. (E)

- 12-11-75 FUR COURT TRIAL—Swore wits, fld exhibits.  
Ent ord cont'd to 12-12-75 @ 9 a.m. for further  
Crt Trial. (E)
- 12-12-75 FUR COURT TRIAL—Swore wits, fld exhibits.  
Ent ord cont'd to 1-9-76 @ 9:30 a.m. for further  
Crt Trial. (E)
- 12-29-75 Fld pltfs'—MEMO of P/As re: Nevada Law &  
MEMO of P/As re: Choice of Laws t/w affidt of  
svc by mail thereto.
- 1-9-76 FUR COURT TRIAL—Swore wits, fld exhibits.  
Ent ord cont'd to 1-13-76 @ 2 p.m. for further Crt  
Trial. (E)
- 1-13-76 FUR COURT TRIAL—Ent ord Judgmnt for Pltf.  
Findings, etc. & Judgmnt to be prepared by pltf.  
(E).
- 3-17-76 Fld Findings of Fact & Conclusions of Law. (E)
- 3-23-76 Fld Judgmnt After Trial By Court that pltfs have  
Judgmnt against deft USA in amt of \$150,000;  
FUR ORD that in addition to above, pltf  
MAXINE CEARLEY have judgmnt against deft  
USA in amt of \$15,000; FUR ORD that pltf  
KAREN CLEARLEY have judgmnt against deft  
USA in amt of \$17,500; FUR ORD that in addi-  
tion, pltf CHARLES N. CEARLEY have  
Judgmnt against deft USA In amt of \$17,500;. (E)  
JS-6 CARD MADE. (ENT 3-26-76) Cys mld.
- 4-8-76 Fld Bill of Costs calendared for 4-8-76 @ 2 p.m.
- 4-8-76 TAXING BILL OF COSTS—No appearance made  
by JAMES H. MILLER. NOTE: Cost Bill fld  
4-8-76 @ 1 p.m. I notified M. QUINTON who did  
appear & had the following objections: 1)—Ob-  
jects to Crt Reptr Costs of Transcript obtained  
for cnsl's convenience—not taxable; 2)—Objects  
to depo costs—only costs of original transcript are  
taxable; 3)—Objects to air fare to Dallas, Texas  
for pre-trial—not allowed by statute or local rule;  
& 4)—Objects to late flg by 15 days of Bill of  
Costs. Matter taken under submission. (CLK)  
Cys mld.
- 5-4-76 TAXING OF COSTS—Deft's objection to reprs  
transcript sustained. Transcripts obtained for

cnsl's use are not taxable. Dft's objections to depo costs overruled. Atty for pltf represents costs are for original only. Deft's Objection to air fare for cnsl to attend pre-trial in Dallas is sustained on ground not allowable by statute or local rule. In view of pltf's representation in letter of April 30 re late receipt of the notice of Entry of Judgmnt, deft's objection to late flg of Cost Bill is overruled. Costs are Taxed in Sum of \$1,000.36. Cnsl's attention is called to Local Rule 15(g) which provides in part: "mot to re-tax by any part, purs to F.R.Cv.P., Rule 54(d), upon written notice thereof, served & fld w/Clk within 5 days after the costs have been taxed in clerk's office..." (CLK) Cys mld.

- 5-11-76 TAXING OF COST—Ent ord that on 5-4-76 costs were taxed herein in sum of \$1,004.36. It now appearing that because of a clerical error, 200 miles mileage allowance for witness RICHARD O'TOOLE, 4422 Chevy Chase Dr., La Canada, California was taxed. Purs to Local Rule 15, mileage is allowed for only that portion of travel within the Dist. Accordingly, the mileage allowance for witness O'TOOLE is hereby reduced to 120 miles of \$12.00 and costs are hereby retaxed in the total sum of \$996.36. (CLK) Cys mld.
- 5-25-76 Fld Notice of Appeal from judgment of 3-26-76.
- 6-3-76 Fld USA notice & motion for extension of time for designation of record on appeal for 6-14-76 @ 10:30 a.m. w/affid of serv.
- 6-8-76 Fld Defts ex parte application for extension of time for designation of record on appeal and affid thereon.  
Fld order extending time to designate record on appeal to 6-30-76(E)
- 6-9-76 Ent ord mot for extension of time off calendar and hearing date vacated. (E)
- 6-30-76 Fld ex parte application and order extending time to file designation of record on appeal to 8-23-76 (E)
- 8-23-76 Fld Appellants designation of record on appeal.

Fld Reporters Transcript of proceedings on appeal  
Index (D. Joan King OCR) 1 Volume, original and  
one copy.  
Fld Reporters Transcript of proceedings on 1-29-75  
(D. Joan King OCR) 1 Volume, original and one  
copy.  
Reporter's Transcript of proceedings on 1-30-75 (D.  
Joan King OCR) Vol. II, original and one copy.  
Reporter's Transcript of proceedings on 1-31-75 (D.  
Joan King OCR) Vol. III, original and one copy.  
Reporter's Transcript of proceedings on 2-4-75 (D.  
Joan King OCR) Vol. IV, original and one copy.  
Reporter's Transcript of proceedings on 2-5-75 (D.  
Joan King OCR) Vol. V, original and one copy.  
Reporter's Transcript of proceedings on 2-5-76 (D.  
Joan King OCR) Vol. V-a, original and one copy.  
Reporter's Transcript of proceedings on 2-6-75, (D.  
Joan King OCR) Vol. VI, original and one copy.  
Reporter's Transcript of proceedings on 3-11-75 (D.  
Joan King OCR) Vol. VII, original and one copy.  
Reporter's Transcript of proceedings on 3-12-75 (D.  
Joan King OCR) Vol. VIII, original and one copy.  
Reporter's Transcript of proceedings on 3-13-75 (D.  
Joan King OCR) Vol. IX, original and one copy.  
Reporter's Transcript of proceedings on 3-14-75 (D.  
Joan King OCR) Vol. X, original and one copy.  
Reporter's Transcript of proceedings on 3-18-75 (D.  
Joan King OCR) Vol. XI, original and one copy.  
Reporter's Transcript of proceedings on 3-19-75 (D.  
Joan King OCR) Vol. XII, original and one copy.  
Reporter's Transcript of proceedings on 3-20-75 (D.  
Joan King OCR) Vol. XIII, original and one copy.  
Reporter's Transcript of proceedings on 3-25-75 (D.  
Joan King OCR) Vol. XIV, original and one copy.  
Reporter's Transcript of proceedings on 3-27-75 (D.  
Joan King OCR) Vol. XV, original and one copy.  
Reporter's Transcript of proceedings on 4-2-75 &  
9-8-75 (D. Joan King OCR) Vol. XVI, original and  
one copy.

SEP 30 1978 Mld rept's trans t/w Clk's record to USCA

2-25-80 Rec'd c.c. of jdgmt from USCA reversing & re-  
manding decision of USDC.

- 3-3-80 Fld notice of hrg request to filg c.c. of jdgmt of USCA reversing jdmnt of USDC set 3-24-80 at 10:30am. (Mld cys)
- 3-24-80 Ent ord hrg petn requisite to filg c.c. of jdgmt of USCA reversing & remanding decision of USDC ord fld & entered; fur hrg on remand cont to 4-9-80 at 9am. (E)  
Fld cc. of jdgmt from USCA reversing & remaining decision of USDC. (Ent 3-25-80)
- 4-9-80 Ent ord cont to 6-10-80 at 9:30 am for hrg on remand; briefs to be submitted by 5-19-80 by deft & by 5-9-80 by pltf. (E)
- 5-9-80 Fld pltf trial brief. t/w declar of serv.
- 5-19-80 Fld deft trial brief t/w cert of serv.
- 5-20-80 Flf deft erratum—defts trial brief. t/w cert of serv.
- 5-30-80 Fld pltf rebuttal trial brief t/w declar of serv.
- 6-10-80 Swore wits Ent ord hrg on remand from USCA further hrg cont to 7-9-80 at 9am(E)
- 7-9-80 Ent ord further hrg on remand from USCA hrg cont to 8-7-80 at 9am(E)
- 8-7-80 Ent ord hrg on remand from U.S. ct of Appeals cont to 9-19-80 at 9:30 am(E)
- 9-12-80 Fld pltf request for judicial notice t/w cert of serv.
- 9-19-80 Ent ord hrg deft mot to dis, to strike, testimony of wit Hallday Motion denied, mot to dis submitted, hrg on remand form USCA submitte, pltfs verdict stands, plt to submit prop findings of fact and conc of law w/in 7 days ct to consider memo opin prior to ent of jgmtn (e)
- 9-29-80 Fld pltf memo of p/a in support of request of judicial notice t/w cert of serv.  
Lodged pltf proposed additional finding of facts & conclusions of law t/w cert of serv. (ORIGINAL TO JUDGE E)
- 10-10-80 Lodged pltfs additional findings of fact and conc of law. orig to Judge E
- 10-24-80 Fld deft object to proposed findings of fact & concl of law t/w cert of serv.

- 11-5-80 Fld deft supplemental memo to objections to proposed findings of fact & conclusions of law. t/w cert of serve.
- 11-24-80 Fld findings of fact & conclusions of law, the ct having reaffirmed its decision on 9-19-80 in favor of plts & against the deft U.S.A. (E)(ENT 11-24-80) mld cys
- Fld memo decision that the jdmnt is for the pltf is hereby confirmed & an appropriate form of jdmnt shall be prepared by pltfs & submitted to the ct w/in 5 days & also served on defts for approval as to form (E) (ENT 11-24-80) m,ld cys.
- 12-17-80 Fld confirmation of jdmnt, its ord that pltf jdmnt aganist deft U.S.A. entered herein on 4-23-76 are confirmed (E) (ENT 12-17-80) mld cys JS6
- 1-22-81 Fld NOTICE OF APPEAL AS TO JDMMT Entered on 11-24-80 Mld desig of rept trans & not of docket fee.
- 2-13-81 Fld design of repts trans of 6-10-80 & 9-19-80.
- 2-20-81 Fld appellee trans desig & ord form t/w cert of serv.
- 3-16-81 Fld rept trans of 6-10-80 & 9-19-80 (J. KING OCR) cert of record to USCA & mld cys to atty.

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF CALIFORNIA

No. 70-138-5

MAXINE CEARLEY, CHARLES NATHAN CEARLEY, a Minor,  
and KAREN MARIE CEARLEY, a Minor, by and through  
their Guardian ad Litem, SANFORD B. HUNT, PLAINTIFFS,

v.

UNITED STATES OF AMERICA, DEFENDANT.

---

COMPLAINT FOR DAMAGES  
FOR WRONGFUL DEATH

---

(Federal Tort Claims Act)

Plaintiffs allege:

I

This action is brought under the provisions of the Act commonly known as the Federal Tort Claims Act and the Court has jurisdiction of the subject matter and of the parties pursuant to the provisions of Title 28, Section 1346(b), 2671, 2674, et seq. of the United States Code and Section 28 USC Section 1402.

II

On or about September 2, 1969, pursuant to Title 28 USC 2675 et seq., a claim was filed with the Federal Aviation Administration Regional Counsel, Los Angeles, California, for the damages in the amount of \$694,000.00. On or about September 15, 1969, plaintiffs' counsel received a request from the Department of Transportation, Federal Aviation Administration, Washington, D.C. for more information. On or about October 30, 1969, additional information was submitted to the Federal Aviation Administration, Washington, D.C. On or about January 14, 1970, plaintiffs received notice from the Federal Aviation Adminstration Of-

fice of the General Counsel that the above mentioned claim had been rejected.

### III

Plaintiff, MAXINE CEARLEY, is the surviving spouse of CHARLES RAY CEARLEY, and plaintiff, SANFORD B. HUNT, has been appointed Guardian at Litem for plaintiffs, CHARLES NATHAN CEARLEY, age fifteen (15) years, and KAREN MARIE CEARLEY, age sixteen (16) years, on February 25, 1969 in the Superior Court of the State of California, for the County of San Diego, and that said plaintiff, SANFORD B. HUNT, brings this action as the Guardian at Litem of said minor children and for the benefit of said minor children.

### IV

Plaintiffs, and each of them, are residents of San Diego County and the County of San Diego is in the Southern District of California.

### V

On or about October 8, 1968, plaintiffs' decedent, CHARLES RAY CEARLEY, was a passenger for hire on board a regular scheduled flight from Las Vegas, Nevada to San Diego, California, on a DE HAVILLAND DOVE 104 airplane, owned and operated by CATALINA-VEGAS AIRLINES.

### VI

On or about October 8, 1959, the DE HAVILLAND DOVE 104 airplane, referred to above, registration number 4040B, operated by the CATALINA-VEGAS AIRLINES, on said flight from Las Vegas, Nevada to San Diego, California, caught fire in flight and crashed, killing plaintiffs' decedent.

### VII

The aforesaid crash was caused and brought about through the negligence of defendant, its agents, servants and employees acting within the scope of their office or employment in the approval of a standard change order, in-

spection of said aircraft, permitting the aircraft, its engine, parts and appurtenances to be and remain in a defective, dangerous and worn out condition.

### VIII

As a result of the crash of the aircraft, plaintiffs' decedent left surviving him a widow and two (2) children who have forever lost and been deprived of his aid and support, all to the plaintiff's damage in the sum of \$694,000.00.

### IX

The aforementioned death was caused solely by defendant, its agents, servants and employees, and without any negligence of plaintiffs' decedent contributing thereto.

WHEREFORE, plaintiffs pray judgment against the defendant as follows:

1. For damages for wrongful death in the sum of \$694,000.00;
2. For costs of suit incurred herein; and
3. For such other relief as to this Court may seem just.

DATED: APRIL 27, 1970.

GELFAND, GEER, POPKO & NICKOLOFF

By: \_\_\_\_\_

MICHAEL I. GREER

*Attorneys for Plaintiffs*

1 STATE OF CALIFORNIA  
 2 COUNTY OF SAN DIEGO }  
 3

I am the PLAINTIFF

in the above entitled action; I have read the foregoing COMPLAINT FOR REVENGE FOR  
 WRONGFUL DEATH (Federal Death Claims Act)

and know the contents thereof; and I certify that the same is true of my own knowledge, except as to those matters which are therein stated upon my information or belief, and as to those matters I believe it to be true.

I certify (or declare), under penalty of perjury,\* that the foregoing is true and correct.

Executed on MAY 6, 1970 at POWAY California  
 (date) (place)

MANINE CEARLEY /s/  
 Signature  
 MANINE CEARLEY

## (PROOF OF SERVICE BY MAIL -- 1013a, 2015.5 C. C. P.)

STATE OF CALIFORNIA  
 COUNTY OF }

I am a citizen of the United States and a resident of the county aforesaid; I am over the age of eighteen years and not a party to the within entitled action; my business address is:

On \_\_\_\_\_, 19\_\_\_\_, I served the within

on the  
 in said action, by placing a true copy thereof enclosed in a sealed envelope with postage thereon fully prepaid, in the  
 United States mail at \_\_\_\_\_  
 addressed as follows:

I certify (or declare), under penalty of perjury,\* that the foregoing is true and correct.

Executed on \_\_\_\_\_ at \_\_\_\_\_ California  
 (date) (place)

\_\_\_\_\_  
 Signature

1 STATE OF CALIFORNIA  
 2 COUNTY OF SAN DIEGO }  
 3 I am the Sanford B. Hunt, Guardian ad Litem for CHARLES WILKINSON  
CERBLEY, a Minor, and JOSEPH MARIE CERBLEY, a Minor  
 4 in the above entitled action; I have read the foregoing COMPLAINT FOR DAMAGES FOR  
WRONGFUL DEATH (Federal Death Claims Act)

5 and know the contents thereof; and I certify that the same is true of my own knowledge, except as to those matters which  
 6 are therein stated upon my information or belief, and as to those matters I believe it to be true.

7 \_\_\_\_\_  
 8 \_\_\_\_\_  
 9 \_\_\_\_\_  
 10 \_\_\_\_\_

11 I certify (or declare), under penalty of perjury,\* that the foregoing is true and correct.

12 Executed on May 6, 1970 at Poison California  
 13 (date) (place)

14 SANFORD B. HUNT /s/  
 15 Signature  
 SANFORD B. HUNT

16 (PROOF OF SERVICE BY MAIL -- 1013a, 2015.5 C. C. P.)

17 STATE OF CALIFORNIA  
 18 COUNTY OF }  
 19

I am a citizen of the United States and a resident of the county aforesaid; I am over the age of eighteen years and not  
 a party to the within entitled action; my business address is:

20 \_\_\_\_\_  
 21 On \_\_\_\_\_, 19\_\_\_\_\_, I served the within \_\_\_\_\_  
 22 \_\_\_\_\_

23 on the \_\_\_\_\_  
 24 in said action, by placing a true copy thereof enclosed in a sealed envelope with postage thereon fully prepaid, in the  
 25 United States mail at \_\_\_\_\_  
 26 addressed as follows:  
 27  
 28

29 I certify (or declare), under penalty of perjury,\* that the foregoing is true and correct.

30 Executed on \_\_\_\_\_ at \_\_\_\_\_ California  
 31 (date) (place)

32 \_\_\_\_\_ Signature

IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF CALIFORNIA

Civil action No. 70-138-S

MAXINE CEARLEY, CHARLES NATHAN CEARLEY, a Minor  
and KAREN MARIE CEARLEY, a Minor, by and through  
their Guardian ad Litem, SANFORD B. HUNT, PLAINTIFFS,

v.

UNITED STATES OF AMERICA, DEFENDANT.

HARRY D. STEWARD  
United States Attorney  
RAYMOND F. ZVETINA  
Assistant United States Attorney  
325 West F. Street  
San Diego, California 92101  
Telephone: 714-923-5690  
Attorneys for Defendant

**ANSWER TO COMPLAINT**

Defendant, UNITED STATES OF AMERICA, by its attorney, HARRY D. STEWARD, United States Attorney for the Southern District of California, for its answer to the plaintiffs' complaint herein, alleged as follows:

**FIRST:** The allegations contained in paragraph I of the complaint present questions of law which are respectfully referred to this Court for determination.

**SECOND:** In response to the allegations contained in paragraph II of the complaint, admits that a claim was filed with the Federal Aviation Administration Regional Counsel on behalf of persons claiming as survivors or heirs of the estate of decedent and that the same was denied, and except as above admits, it is without information or knowledge sufficient to form a belief as to each and every other allegation contained therein.

THIRD: It is without knowledge or information sufficient to form a belief as to the allegations contained in paragraphs "III", "IV" and "V" of the complaint.

FOURTH: In response to the allegations of paragraph "VI" of the complaint, admits that at the approximate time alleged a De Havilland aircraft crashed, and except as above admitted, it is without information or knowledge sufficient to form a belief as to each and every other allegation contained therein.

FIFTH: The allegations contained in paragraphs "VII", "VIII" and "IX" of the complaint are denied.

#### **FIRST DEFENSE**

SIXTH: This complaint fails to state a cause of action upon which relief can be granted.

#### **SECOND DEFENSE**

SEVENTH: This Court lacks jurisdiction of this complaint pursuant to 28 U.S.C. 2680 (a) and (h).

#### **THIRD DEFENSE**

EIGHTH: The travel of plaintiffs' decedent, in the aircraft, more particularly described in the complaint, was made subject to, in connection with, and with the acceptance of the risks and perils of the air through which said aircraft travelled, and acts of God, over all of which this defendant had no control, and by accepting, assuming and undertaking all said risks and dangers, plaintiffs' decedent assumed, accepted and undertook all said risks and dangers, and the death of plaintiffs' decedent arose out of and resulted from said risks and dangers and acts of God.

#### **FOURTH DEFENSE**

NINTH: Defendant, United States of America, and its agencies and employees, exercised due care and diligence in all of the matters alleged in the complaint herein, and no act or failure to act of defendant, or any agency or employee of defendant, was the proximate cause of any loss or damage to Plaintiffs.

WHEREFORE, defendant, UNITED STATES OF AMERICA, demands judgment dismissing the complaint

herein, together with its costs and disbursements and for such other further and different relief as to this court may seem just and proper.

DATED: 9-14-70.

HARRY D. STEWARD  
*United States Attorney*

By: \_\_\_\_\_  
RAYMOND F. ZVETINA  
*Assistant United States Attorney*

OF COUNSEL:

JOHN R. HARRISON  
Washington, D.C. 20530

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Answer to Complaint was mailed this 9th day of September, 1970, to:

GALFORD, GREER, POPKO  
& NICKOLOFF  
*Attorneys for Plaintiffs*  
1568 Sixth Avenue  
San Diego, California 92101

/S/ GERARDA A. SMITH  
GERARDA A. SMITH  
*Secretary*  
*Aviation Litigation Unit*

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF CALIFORNIA

No. 71-37-GT

KATHLEEN M. FLEMING, LAURA A. FLEMING, MICHELLE P. FLEMING, THOMAS G. FLEMING, III., AND KEVIN M. FLEMING, minors, by and through their Guardian Ad Litem,  
THOMAS G. FLEMING, JR., PLAINTIFFS

v.

UNITED STATES OF AMERICA, DEFENDANT

---

**COMPLAINT FOR DAMAGES FOR WRONGFUL DEATH**

---

(Federal Tort Claims Act)

Plaintiffs allege:

I

This action is brought under the provisions of the Act commonly known as the Federal Tort Claims Act and the Court has jurisdiction of the subject matter and of the parties pursuant to the provisions of Title 28, Section 1346(b), 2671, 2674, et seq. of the United States code and Section 28 USC Section 1402.

II

On or about October 7, 1970, pursuant to Title 28 USC 2675 et seq., a claim was filed with the Federal Aviation Administration Regional Counsel, Los Angeles, California, for the damages in the amount of \$1,000,000.00. On or about December 1, 1970, plaintiffs received notice from the Federal Aviation Administration Office of the General Counsel that the above mentioned claim had been rejected.

III

THOMAS G. FLEMING, JR. has been appointed Guardian Ad Litem for plaintiffs, KATHLEEN M. FLEMING, age 14; LAURA A. FLEMING, age 11; MICHELLE P.

FLEMING, age 10; THOMAS G. FLEMING, III, age 16 and KEVIN M. FLEMING, age 13, on March 12, 1969, in the Superior Court of the State of California, for the County of San Diego, and that said THOMAS G. FLEMING, JR. brings that action as the Guardian of said minor children and for the benefit of said minor children.

#### IV

Plaintiffs, and each of them, are residents of San Diego County and the County of San Diego is in the Southern District of California.

#### V

On or about October 8, 1968, plaintiffs' decedent, KATHERINE PATRICIA FLEMING, was a passenger for hire on board a regular scheduled flight from Las Vegas, Nevada to San Diego, California, on a DE HAVILLAND DOVE 104 airplane, owned and operated by CATALINA-VEGAS AIRLINES.

#### VI

On or about October 8, 1968, the DE HAVILLAND DOVE 104 airplane, referred to above, registration number 4040B, operated by the CATALINA-VEGAS AIRLINES, on said flight from Las Vegas, Nevada to San Diego, California, caught fire in flight and crashed, killing plaintiffs' decedent.

#### VII

The aforesaid crash was caused and brought about through the negligence of defendant, its agents, servants and employees acting within the scope of their office or employment in the approval of a standard change order, inspection of said aircraft, permitting the aircraft, its engine, parts and appurtenances to be and remain in a defective, dangerous and worn out condition.

#### VIII

As a result of the crash of the aircraft, plaintiffs' decedent left surviving her five (5) children who have forever

lost and been deprived of her aid and support, all to the plaintiffs' damage in the sum of \$1,000,000.00.

## IX

The aforementioned death was caused solely by the defendant, its agents, servants and employes, and without any negligence of plaintiffs' decedent contributing thereto.

WHEREFORE, plaintiffs pray judgment against the defendant as follows:

1. For damages for wrongful death in the sum of \$1,000,000.00
2. For costs of suit incurred herein; and
3. For such other relief as to this Court may seem just.

DATED: JANURY 29, 1971.

RICHARD F. GERRY AND  
CASEY, McCLENAHAN & FRALEY

By: Richard F. Gerry

RICHARD F. GERRY  
*Attorneys for Plaintiffs*

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF CALIFORNIA

No. 71-37-GT  
Filed: May 3, 1971

HARRY D. STEWARD  
*United States Attorney*

SHELDON DEUTSCH  
*Assistant United States Attorney*  
*325 West F Street*  
*San Diego, California 92101*  
*Telephone: 293-5675*  
*Attorneys for Defendant.*

KATHLEEN FLEMING, LAURA A. FLEMING, MICHELLE P.  
FLEMING, THOMAS G. FLEMING, III, AND KEVIN M.  
FLEMING, MINORS, BY AND THROUGH THEIR GUARDIAN AD  
LITEM, THOMAS G. FLEMING, JR., PLAINTIFFS

v.

UNITED STATES OF AMERICA, DEFENDANT

ANSWER TO COMPLAINT

Defendant, UNITED STATES OF AMERICA, by its attorney, HARRY D. STEWARD, United States Attorney for the Southern District of California, for its answer to the complaint herein, answers as follows:

FIRST: The allegations contained in paragraph I of the complaint present questions of law which are respectfully referred to the court for determination.

SECOND: In response to the allegations in paragraph II of the complaint, admits that a claim was filed with the Federal Aviation Administration Regional Counsel on behalf of persons claiming as survivors of heirs of the estate of decedent and that the same was denied, and except as above admitted, it is without information or knowledge sufficient to form a belief as to each and every other allegation contained therein.

THIRD: It is without knowledge or information sufficient to form a belief as to the allegations contained in paragraph "III" "IV" and "V" of the complaint.

FOURTH: In response to the allegations of paragraph "VI" of the complaint, admits that at the approximate time alleged in the complaint a De Havilland aircraft crashed, and except as above admitted, it is without information or knowledge sufficient to form a belief as to each and every other allegation contained therein.

FIFTH: The allegations contained in paragraphs "VII", "VIII" and "IX" of the complaint are denied.

#### **FIRST DEFENSE**

SIXTH: The complaint fails to state a claim upon which relief can be granted.

#### **SECOND DEFENSE**

SEVENTH: This Court lacks jurisdiction of this complaint pursuant to 28 U.S.C. 2680(a) and (h).

#### **THIRD DEFENSE**

EIGHTH: The travel of plaintiffs' decedent in the aircraft more particularly described in the complaint, was made subject to, in connection with, and with the acceptance of the risks and perils of the air through which said aircraft travelled, and acts of God over all of which this defendant had no control, and by accepting assuming and undertaking all said risks and dangers, plaintiffs' decedent assumed, accepted and undertook all said risks and dangers and the death of plaintiffs' decedent arose out of and resulted from said risks and dangers and acts of God.

#### **FOURTH DEFENSE**

NINTH: Defendant, United States of America, and its agencies and employees, exercised due care and diligence in all of the matter alleged in the complaint, and no act or failure to act of defendant or any of its agents or employees was the proximate cause of any loss or damage to plaintiffs.

WHEREFORE, Defendant, UNITED STATES OF AMERICA, demands judgment dismissing the complaint herein, together with its costs and disbursements, and for

such other further and different relief as to this court may seem just and proper.

HARRY D. STEWARD  
*United States Attorney*

SHELDON DEUTSCH  
*Assistant United States Attorney*

/s/ \_\_\_\_\_

JOHN R. HARRISON  
*Department of Justice*  
*Washington, D.C. 20530*

**CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that a true and correct copy of the foregoing Answer to Complaint was mailed this 29th day of April, 1971, to:

RICHARD F. GERRY, ESQ.  
AND  
CASEY, McCLENAHAN & FRALEY  
*110 Laurel Street*  
*San Diego, California 92101*

/s/ \_\_\_\_\_  
GERARDA A. SMITH

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF CALIFORNIA

No: 71-38-CW

SIMONNE C. WEAVER; SONJA S. WEAVER, GARY R. WEAVER, AND MONIQUE LAHOMA WEAVER, A.K.A., MONIQUE LOHMA WEAVER, MINORS, BY AND THROUGH THEIR GUARDIAN AD LITEM, SIMONNE C. WEAVER,  
PLAINTIFFS

v.

UNITED STATES OF AMERICA, DEFENDANT.

**COMPLAINT FOR DAMAGES  
FOR WRONGFUL DEATH**  
(Federal Tort Claims Act)

Plaintiffs allege:

## I

This action is brought under the provisions of the Act commonly known as the Federal Tort Claims Act and the Court has jurisdiction of the subject matter and of the parties pursuant to the provisions of Title 28, Section 1346(b), 2671, 2674, et seq. of the United States Code and Section 28 USC Section 1402.

## II

On or about October 7, 1970, pursuant to Title 28 USC 2675 et seq., a claim was filed with the Federal Aviation Administration Regional Counsel, Los Angeles, California, for the damages in the amount of \$2,000,000.00. On or about December 1, 1970, plaintiffs received notice from the Federal Aviation Administration Office of the General Counsel that the above mentioned claim had been rejected.

## III

Plaintiff, SIMONNE C. WEAVER, is the surviving spouse of VERNON CLYDE WEAVER, and has been appointed Guardian Ad Litem for plaintiffs, SONJA S. WEAVER, age 12; GARY R. WEAVER, age 11 and MONIQUE LAHOMA WEAVER, aka MONIQUE

LOHMA WEAVER, age 7 on October 5, 1970, in the Superior Court of the State of California, for the County of San Diego, and that said plaintiff SIMONNE C. WEAVER brings this action as the Guardian of said minor children and for the benefit of said minor children.

#### IV

Plaintiffs, and each of them, are residents of San Diego County and the County of San Diego is in the Southern District of California.

#### V

On or about October 8, 1968, plaintiffs' decedent, VERNON CLYDE WEAVER was the co-pilot on a regular scheduled flight from Las Vegas, Nevada to San Diego, California, on a DE HAVILLAND DOVE 104 airplane, owned and operated by CATALINA-VEGAS AIRLINES.

#### VI

On or about October 8, 1968, the DE HAVILLAND DOVE 104 airplane, referred to above, registration number 4040B, operated by the CATALINA-VEGAS AIRLINES, on said flight from Las Vegas, Nevada to San Diego, California, caught fire in flight and crashed, killing plaintiffs' decedent.

#### VII

The aforesaid crash was caused and brought about through the negligence of defendant, its agents, servants and employees acting within the scope of their office or employment in the approval of a standard change order, inspection of said aircraft, permitting the aircraft, its engine, parts and appurtenances to be and remain in a defective, dangerous and worn out condition.

#### VIII

As a result of the crash of the aircraft, plaintiffs' decedent left surviving him a widow and three (3) children who have forever lost and been deprived of his aid and support, all to the plaintiffs' damage in the sum of \$2,000,000.00.

## IX

The aforementioned death was caused solely by the defendant, its agents, servants and employees, and without any negligence of plaintiffs' decedent contributing thereto.

WHEREFORE, plaintiffs pray judgment against the defendant as follows:

1. For damages for wrongful death in the sum of \$2,000,000.00;
2. For costs of suit incurred herein; and
3. For such other relief as to this Court may seem just.

DATED: Jan. 29, 1971.

RICHARD F. GERRY AND  
CASEY, McCOLENAHAN & FRALEY

/s/

RICHARD F. GERRY  
*Attorneys for Plaintiffs*

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF CALIFORNIA

Civil No. 71-38-CW

**HARRY D. STEWARD***United States Attorney***SHELDON DEUTSCH***Assistant United States Attorney**325 West F Street**San Diego, California 92101**Telephone: 293-5675**Attorneys for Defendant.***SIMONNE C. WEAVER: SONJA S. WEAVER, GARY R. WEAVER AND  
MONIQUE LAHOMA WEAVER, AKA, MONIQUE LOHMA WEAVER,  
MINORS, BY AND THROUGH THEIR GUARDIAN AD LITEM, SIMONNE  
C. WEAVER, PLAINTIFFS,**

U.

**UNITED STATES OF AMERICA, DEFENDANT****ANSWER TO COMPLAINT**

Defendant, UNITED STATES OF AMERICA, by its attorney, HARRY D. STEWARD, United States Attorney for the Southern District of California, for its answer to the complaint herein, answers as follows:

**FIRST:** The allegations contained in paragraph I of the complaint present questions of law which are respectfully referred to the court for determination.

**SECOND:** In response to the allegations in paragraph II of the complaint, admits that a claim was filed with the Federal Aviation Administration Regional Counsel on behalf of persons claiming as survivors or heirs of the estate of decedent and that the same was denied, and except as above admitted, it is without information or knowledge sufficient to form a belief as to each and every other allegation contained therein.

**THIRD:** It is without knowledge or information sufficient to form a belief as to the allegations contained in paragraphs "III" and "IV" of the complaint.

**FOURTH:** In response to the allegations of paragraphs "V" and "VI" of the complaint, admits that at the approxi-

mate time a De Havilland aircraft crashed, and except as above admitted, it is without knowledge or information sufficient to form a belief as to each and every other allegation contained therein.

FIFTH: The allegations contained in paragraphs "VII", "VIII" and "IX" of the complaint are denied.

#### **FIRST DEFENSE**

SIXTH: The complaint fails to state a claim upon which relief can be granted.

#### **SECOND DEFENSE**

SEVENTH: This Court lacks jurisdiction of this complaint pursuant to 28 U.S.C. 2680(a) and (h).

#### **THIRD DEFENSE**

EIGHTH: The travel of plaintiffs' decedent in the aircraft, more particularly described in the complaint, was made subject to, in connection with, and with the acceptance of the risks and perils the air through which said aircraft travelled, and acts of God, over all of which this defendant had no control, and by accepting, assuming and undertaking all said risks and dangers, plaintiffs' decedent assumed, accepted and undertook all said risks and dangers, and the death of plaintiffs' decedent arose out of and resulted from said risks and dangers and acts of God.

#### **FOURTH DEFENSE**

NINTH: Defendant, United States of America, and its agencies and employees, exercised due care and diligence in all of the matter alleged in the complaint, and no act or failure to act of defendant any of its agents, servants or employees was the proximate cause of any loss or damage to plaintiffs.

#### **FIFTH DEFENSE**

TENTH: The negligence of plaintiffs' decedent caused or contributed to the accident herein alleged.

WHEREFORE, Defendant, UNITED STATES OF AMERICA, demands judgment dismissing the complaint herein, together with its costs and disbursements, and for

such other, further and different relief as to this court may seem just and proper.

HARRY D. STEWARD  
United States Attorney

/s/

JOHN R. HARRISON  
*Department of Justice*  
Washington, D.C. 20530

**CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that a true and correct copy of the foregoing Answer to Complaint was mailed this 29th day of April, 1971, to:

RICHARD F. GERRY, Esq.  
AND  
CASEY, McCLENAHAN & FRALEY  
*110 Laurel Street*  
*San Diego, California 92101*

/s/

GERARDA A. SMITH

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF CALIFORNIA

No: 71-39-S

JOHN WM. DOWDLE, JR., PLAINTIFF

v.

UNITED STATES OF AMERICA, DEFENDANT

COMPLAINT FOR  
PROPERTY DAMAGE

Plaintiff alleges:

I

This action is brought under the provisions of the Act commonly known as the Federal Tort Claims Act and the Court has jurisdiction of the subject matter and of the parties pursuant to the provisions of Title 28, Section 1346(b), 2671, 2674, et seq. of the United States Code and Section 28 USC Section 1402.

II

On or about October 7, 1970, pursuant to Title 28 USC 2675 et seq., a claim was filed with the Federal Aviation Administration Regional Counsel, Los Angeles, California, for the property damage in the amount of \$80,000.00. On or about December 1, 1970, plaintiff received notice from the Federal Aviation Administration Office of the General Counsel that the above mentioned claim had been rejected.

III

JOHN WM. DOWDLE, JR. was the owner and registered title holder of that certain aircraft known as DE HAVILLAND DOVE 104, U.S. registration number N 4040 B, serial number 04328.

IV

Plaintiff is a resident of San Diego County and the County of San Diego is in the Southern District of California.

## V

On or about October 8, 1968, that certain aircraft was on a regular scheduled flight from Las Vegas, Nevada to San Diego, California.

## VI

On or about October 8, 1968, the DE HAVILLAND DOVE 104 airplane, referred to above, registration number 4040 B, operated by JOHN WM. DOWDLE, JR., d/b/a CATALINA-VEGAS AIRLINES, on said flight from Las Vegas, Nevada to San Diego, California, caught fire in flight and crashed, resulting in the total destruction of said airplane.

## VII

The aforesaid crash was caused and brought about through the negligence of defendant, its agents, servants and employees acting within the scope of their office or employment in the approval of a standard change order, inspection of said aircraft, permitting the aircraft, its engine, parts and appurtenances to be and remain in a defective, dangerous and worn out condition.

## VIII

As a result of the crash of the aircraft, plaintiff JOHN WM. DOWDLE, JR. suffered loss of use and revenue from said aircraft all to his damage in the sum of \$30,000.00.

## IX

Reasonable value of said aircraft at the time of the crash was \$50,000.00 and as a result of said crash the aircraft was totally destroyed all to plaintiff's damage in the sum of \$50,000.00.

## X

The aforementioned crash was caused solely by the defendant, its agents, servants and employees, and without any negligence of plaintiff contributing thereto.

WHEREFORE, plaintiff prays judgment against the defendant as follows:

1. For property damage in the amount of \$50,000.00;

2. For loss of use and revenue in the amount of \$30,000.00;
3. For all costs of suit; and
4. For such other and further relief as to the Court seems just and proper.

DATED Jan. 29th, 1971.

RICHARD F. GERRY, AND  
CASEY, McCLENAHAN & FRALEY

/s/

RICHARD F. GERRY  
*Attorneys for plaintiff*

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF CALIFORNIA

Civil Action No. 71-39-S

HARRY D. STEWARD  
*United States Attorney*

SHELDON DEUTSCH  
*Assistant United States Attorney*  
*325 West F Street*  
*San Diego, California 92101*  
*Telephone: 293-5675*

*Attorneys for Defendant*

JOHN WM. DOWDLE, JR., PLAINTIFF,

v.

UNITED STATES OF AMERICA, DEFENDANT

**DEFENDANT'S ANSWER TO  
COMPLAINT AND COUNTERCLAIM**

Defendant, UNITED STATES OF AMERICA, by HARRY D. STEWARD, United States Attorney for the Southern District of California, for its answer to the complaint herein, answers as follows:

**FIRST:** The allegations contained in paragraph I of the complaint present questions of law which are respectfully referred to the court for determination.

**SECOND:** In response to the allegations contained in paragraph "II" of the complaint, admits that a claim was filed with the Federal Aviation Administration Regional Counsel and that the same was denied and except as above admitted, it is without information or knowledge sufficient to form a belief as to each and every other allegation contained therein.

**THIRD:** It is without information or knowledge sufficient to form a belief as to the allegations contained in paragraph "V" of the complaint.

**FOURTH:** In response to the allegations of Paragraph "VI" of the complaint, admits that at the approximate time alleged a De Havilland aircraft crashed, and except as above admitted, it is without information or knowledge suffi-

cient to form a belief as to each and every other allegation contained therein.

FIFTH: The allegations contained in paragraphs "III" and "IV" of the complaint are admitted.

SIXTH: Denies each and every allegation contained in paragraph "VII", "VIII", "IX" and "X" of the complaint.

#### **FIRST DEFENSE**

SEVENTH: The complaint fails to state a cause of action upon which relief can be granted.

#### **SECOND DEFENSE**

EIGHTH: This Court lacks jurisdiction of this complaint pursuant to 28 U.S.C. 2680(a) and (h).

#### **THIRD DEFENSE**

NINTH: The travel of plaintiff in the aircraft more particularly described in the complaint was made subject to and in connection with the risks and perils of the air through which said aircraft travelled, and acts of God, over all of which this defendant had no control, and by accepting, assuming and undertaking all said risks and dangers, plaintiff assumed, accepted and undertook all said risks and dangers, and the damages alleged in the complaint arose out of and resulted from said risks and dangers and acts of God.

#### **FOURTH DEFENSE**

TENTH: Defendant, United States of America, and its agencies and employees exercised due care and diligence in all of the matters alleged in the complaint, and no act or failure to act of defendant or any of its employees or agencies was the proximate cause of any loss or damage to plaintiff.

#### **FIFTH DEFENSE**

ELEVENTH: The negligence of plaintiff, his officers, agents, employees and/or representatives caused or contributed to the accident herein alleged.

#### **COUNTERCLAIM**

1. On or about May, 11, 1970, an action was commenced in the United States District Court for the Southern Dis-

trict of California entitled *Maxine Cearley, et al. v. United States* bearing Civil No. 70-138-S, and on or about May 19, 1970, copies of the summons and complaint were served on defendant United States of America.

2. On or about February 1, 1971 an action was commenced in the United States District Court for the Southern District of California entitled *Kathleen M. Fleming, et al. v. United States*, bearing Civil No. 71-37-GT, and on or about February 3, 1971, copies of the summons and complaint were served on defendant United States of America.

3. On or about February 1, 1971 an action was commenced in the United states District Court for the Southern District of California entitled *Simonne Weaver, et al. v. United States*, bearing Civil No. 71-38-CW, and on or about February 3, 1971, copies of the summons and complaint were served on defendant United States of America.

4. Attached hereto and made a part hereof is a copy of each of the foregoing complaints filed therein against defendant United States of America.

5. It is alleged in said complaints that decedents Cearley and Fleming were passengers for hire on board a commercial aircraft of plaintiff John Wm. Dowdle, and that decedent Weaver was the co-pilot of said aircraft, a De Havilland Dove 104, N4040B, on a regular scheduled flight from Las Vegas, Nevada to San Diego, California; that said aircraft caught fire and crashed, killing the above decedents; that the crash was caused by the negligence of the United States of America, and that the plaintiffs were damaged thereby in the sums set forth in the attached complaints.

6. The aircraft involved in the aforesaid crash was operated, used, dispatched, maintained, equipped, flown and controlled by plaintiff.

7. Plaintiff is and was a common carrier of passengers for hire in air commerce and/or in air transportation.

8. Defendant United States of America denies that any negligent or wrongful act or omission of any agent, servant or employee of the United States of America, while acting in the scope of his employment, caused or contributed to the said crash or the damages allegedly sustained by plain-

tiff in this action or plaintiffs set forth in paragraphs 1, 2 and 3 above.

9. If any negligent or wrongful act or omission of any agent, servant or employee of the United States of America, while acting within the scope of his employment, is found to have occurred in connection with the circumstances of said crash, it was not the proximate or foreseeable cause thereof.

10. Said crash and the alleged consequent damage to plaintiffs set forth in paragraphs 1, 2 and 3 above was caused by the careless, reckless, negligent and wrongful acts or omissions of the plaintiff in the above-entitled cause, or his officers, agents, servants or other representatives in the operation, use, dispatch, maintenance, equipping, flying and controlling of said aircraft involved in the accident herein.

11. If any negligent or wrongful act or omission of any agent, servant or employee of the United States of America, while acting in the scope of his employment, is found to have occurred in connection with the circumstances of said crash, and is found to have caused or contributed thereto, such act or omission was, in relation to the careless, negligent or wrongful act or omissions of plaintiff in the above cause, a passive, secondary or otherwise derivative act or omission.

12. In the circumstances of the said crash, the United States of America did not owe any legal duty to plaintiffs breach of which was the proximate cause of any loss or damage to plaintiffs set forth in paragraphs 1, 2 and 3 above, but if any such duty is found, the duty of plaintiff herein, or his officers, agents, servants and other representatives was, in relation to that of the United States of America, the primary duty, and plaintiff herein is primarily liable for any loss or damage sustained by the United States of America on account of the matters alleged in the complaint attached hereto.

13. If, as a result of the matters alleged in the complaints attached hereto the United States is held liable for all or any part of the claims of plaintiffs therein, plaintiff herein would be liable to the United States of America for a pro

rata share of any liability so assessed by way of contribution, and accordingly, the United States of America asserts its right to such contribution.

WHEREFORE, defendant, UNITED STATES OF AMERICA, demands:

1. Dismissal of the complaint;
2. Judgment against plaintiff for all sums that may be adjudged against the United States of America in favor of the plaintiffs in the complaints attached hereto.
3. In the alternative, for such pro rata part thereof, by way of contribution, as may be just and proper in accordance with applicable laws;
4. Its costs, disbursements, the reasonable value of its attorneys' fees, and such other, further and different relief as to this court may seem just and proper.

HARRY D. STEWARD  
*United States Attorney*

SHELDON DEUTSCH  
*Assistant United States Attorney*

/s/ \_\_\_\_\_  
JOHN R. HARRISON  
*Department of Justice*  
*Washington, D.C. 20530*

#### CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Answer to Complaint and Counterclaim was mailed this 29th day of April, 1971, to:

RICHARD F. GERRY, ESQ.  
*and*  
CASEY, McCLENAHAN & FRALEY  
*110 Laurel Street*  
*San Diego, California 92101*

/s/ \_\_\_\_\_

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF CALIFORNIA

No: 71-36-T

UNITED SCOTTISH INS. CO., LTD.; BRITISH NATIONAL LIFE  
INS. SOC., LTD.; EDINBURGH ASSURANCE CO., LTD.;  
MINISTER INS. CO., LTD.; PHOENIX ASSURANCE CO., LTD.;  
HOME AND OVERSEAS INS. CO., LTD.; SCOTTISH LION INS.  
CO., LTD.; WURTTEMBERGISCHE FEURER, A.G.; ST.  
HELEN'S INS. CO., LTD.; AND NEW ROTTERDAM INS. CO.,  
LTD., PLAINTIFFS

v.

UNITED STATES OF AMERICA, DEFENDANT.

## COMPLAINT FOR INDEMNITY DAMAGE

(Federal Tort Claims Act)

Plaintiffs allege:

## I

This action is brought under the provisions of the Act commonly known as the Federal Tort Claims Act and the Court has jurisdiction of the subject matter and of the parties pursuant to the provisions of Title 28, Section 1346(b), 2671, 2674, et seq. of the United States Code and Section 28 USC Section 1402.

## II

On or about October 7, 1970, pursuant to Title 28 USC 2675 et seq., a claim was filed with the Federal Aviation Administration Regional Counsel, Los Angeles, California, for the damages in the amount of \$110,000.00. On or about December 1, 1970, plaintiffs received notice from the Federal Aviation Administration Office of the General Counsel that the above mentioned claim had been rejected.

## III

Plaintiffs above named are licensed to and do engage in the business of insuring aircraft and aircraft owners against public liability and other risks.

## IV

On or about October 8, 1968, JOHN WM. DOWDLE, JR., doing business under the fictitious name of CATALINA VEGAS AIRLINES, was the owner and registered title holder of a certain DE HAVILLAND DOVE 104, registration number N 4040 B, serial number 04328.

## V

Prior to October 8, 1968, plaintiffs caused to be issued and did issue a policy of public liability insurance insuring JOHN WM. DOWDLE, JR. and CATALINA VEGAS AIRLINES against loss caused by injury or death to passengers being carried upon said DE HAVILLAND DOVE aircraft.

## VI

Said policy of insurance was in full force and effect on October 8, 1968.

## VII

On October 8, 1968, said aircraft, while flying in the vicinity of Las Vegas, Nevada, was caused to crash and burst into flames and crash into the ground.

## VIII

At the time of said crash KATHERINE PATRICIA FLEMING and CHARLES RAY CEARLEY were being carried in said aircraft as paying passengers. As a proximate result of said crash passengers KATHERINE PATRICIA FLEMING and CHARLES RAY CEARLEY were killed.

## IX

At the time subsequent to the airplane crash the heirs of KATHERINE PATRICIA FLEMING and CHARLES RAY CEARLEY were caused to be filed and did file in the Superior Court in the State of California in and for the County of San Diego complaints charging various defendants, including JOHN WM. DOWDLE, JR., d/b/a CATALINA VEGAS AIRLINES with negligence in the ownership, operation, maintenance and repair of said aircraft.

## X

Although at all times maintaining the lack of negligence on the part of the assured, JOHN WM. DOWDLE, JR., d/b/a CATALINA VEGAS AIRLINES and further maintaining that if any negligence there was that said negligence was passive and not active, plaintiffs in the usual and normal course of business and in the exercise of good business judgment and because of the strict laws pertaining to the conduct of common carriers did enter into compromises and releases with the said heirs of KATHERINE PATRICIA FLEMING and CHARLES RAY CEARLEY as payment to the heirs of each of them of \$50,000.00 in exchange of Covenant Not to Sue or Sue Further, all to the damage of plaintiffs in the sum of \$100,000.00. Said compromises, releases and settlements were duly approved by the Superior Court in the State of California and for the County of San Diego.

## XI

As a result of the filing of said law suits plaintiffs were required to and did incur expenses for attorneys fees, costs and other expenses in the approximate sum of \$10,000.00.

## XII

The aforesaid crash was caused and brought about through the negligence of defendant, its agents, servants and employees acting within the scope of their office or employment in the approval of a standard change order, inspection of said aircraft, permitting the aircraft, its engine, parts and appurtenances to be and remain in a defective, dangerous and worn out condition.

## XIII

The aforementioned crash was caused solely by defendant, its agents, servants and employees, and without any negligence of plaintiffs contributing thereto.

WHEREFORE, plaintiffs pray judgment against the defendant as follows:

1. For indemnification by costs of defendant, to include all costs, loss, judgment, expenses, to include attorneys

fees, and all other expenses and expenditures whatsoever related to the matter herein alleged, including \$100,000.00 for settlements previously incurred and \$10,000.00 for costs and attorneys fees previously incurred.

2. That these plaintiffs be held harmless in all respects and reimbursed in full;
3. For costs of suit;
4. For such other and further relief as to the Court seems just and proper.

DATE: Jan. 29, 1971.

RICHARD F. GERRY, AND  
CASEY, McCLENAHAN & FRALEY

/s/

RICHARD F. GERRY  
*Attorneys for Plaintiffs*

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF CALIFORNIA

Civil Action No. 71-36-T

HARRY D. STEWARD

*United States Attorney*

SHELDON DEUTSCH

*Assistant United States Attorney**325 West F Street**San Diego, California**Telephone: 2933-5675**Attorneys for Defendant*UNITED SCOTTISH INSURANCE COMPANY, LTD., ET AL.,  
PLAINTIFFS,*v.*

UNITED STATES OF AMERICA, DEFENDANT

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**ANSWER TO COMPLAINT**

Defendant, UNITED STATES OF AMERICA, by its attorney, HARRY D. STEWARD, United States Attorney for the District of Southern California, for its answer to the complaint herein, answers as follows:

FIRST: The allegations contained in paragraph I of the complaint are respectfully referred to the court for determination.

SECOND: In response to the allegations in paragraph II of the complaint, admits that a claim was filed with the Federal Aviation Administration Regional Counsel and that the same was denied and except as above admitted, it is without information or knowledge sufficient to form a belief as to each and every other allegation therein.

THIRD: It is without knowledge or information sufficient to form a belief as to each and every allegation contained in paragraph "III", "V", "VI", "X" and "XI" of the complaint.

FOURTH: The allegations contained in paragraph IV of the complaint are admitted.

FIFTH: In response to the allegations contained in paragraphs "VII" and "VIII", admits the aircraft crashed on the date and at the place alleged, that the alleged passengers were aboard, and were killed, and except as above admitted, it is without information or knowledge sufficient to form a belief as to each and every other allegation contained therein.

SIXTH: The allegations contained in paragraphs "XII" and "XIII" are denied.

#### **FIRST DEFENSE**

SEVENTH: The complaint fails to state a cause of action upon which relief can be granted.

#### **SECOND DEFENSE**

EIGHTH: This Court lacks jurisdiction of this claim pursuant to 28 U.S.C. 2680(a) and (h).

#### **THIRD DEFENSE**

NINTH: The travel of decedents in the aircraft, more particularly described in the complaint, was made subject to, in connection with, and with the acceptance of the risks and perils of the air through which said aircraft travelled and acts of God, over all of which this defendant had no control, and by accepting, assuming and undertaking all said risks and dangers, decedents assumed, accepted and undertook all said risks and dangers, and the death of decedents arose out of and resulted from said risks and dangers and acts of God.

#### **FOURTH DEFENSE**

TENTH: Defendant, United States of America, and its agencies and employees, exercise due care and diligence in all of the matters alleged in the complaint, and no act or failure to act of defendant or any of its agents or employees was the proximate cause of any loss or damage to plaintiffs.

#### **FIFTH DEFENSE**

ELEVENTH: Plaintiffs' insured, his officers, agents, employees, and/or other representatives caused or contributed to the accident herein alleged.

WHEREFORE, Defendant, UNITED STATES OF AMERICA, demands judgment dismissing the complaint herein, together with its costs and disbursements and for such other further and different relief as to this court may seem just and proper.

HARRY D. STEWARD  
*United States Attorney*

SHELDON DEUTSCH  
*Assistant U.S. Attorney*

/s/ \_\_\_\_\_  
JOHN R. HARRISON  
*Department of Justice*  
*Washington, D.C. 20530*

**CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that a true and correct copy of the foregoing Answer to Complaint was mailed this 29th day of April, 1971 to:

RICHARD F. GERRY, Esq.  
AND  
CASEY, McCLENAHAN & FRALEY  
*110 Laurel Street*  
*San Diego, California 92101*

/s/ \_\_\_\_\_  
GERARDA A. SMITH

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF CALIFORNIA

GREER, POPKO, MILLER & FOERSTER

*A Professional Corporation*

1568 6th Avenue

San Diego, California—92191

Telephone 239-0461

RICHARD F. GERRY

*Attorney at Law*

110 Laurel Street

San Diego, California—92191

Telephone 239-0461

*Attorneys for Plaintiffs*

Civil No. 70-138-E

MAXINE CEARLEY ET AL., PLAINTIFFS,

*v.*

UNITED STATES OF AMERICA, DEFENDANTS.

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Civil No. 71-36-E

SCOTTISH INSURANCE COMPANY ET AL., PLAINTIFFS,

*v.*

UNITED STATES OF AMERICA, DEFENDANT.

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Civil No. 71-37-E

KATHRYN FLEMING ET AL., PLAINTIFFS,

*v.*

UNITED STATES OF AMERICA, DEFENDANT

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Civil No. 71-38-E

SIMONE WEAVER ET AL., PLAINTIFFS,

*v.*

UNITED STATES OF AMERICA, DEFENDANT

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Civil No. 71-39-E

JOHN WILLIAM DOWDLE, JR., PLAINTIFF,

*v.*

UNITED STATES OF AMERICA, DEFENDANT

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**FINDINGS OF FACT AND CONCLUSIONS OF LAW**

This action came on regularly for trial on January 29, 1975, in the above entitled court, the Honorable WILLIAM B. ENRIGHT, Judge Presiding, without a jury, and was actually tried on said date and subsequent dates.

GREER, POPKO, MILLER & FOERSTER, by JAMES H. MILLER, appeared as counsel for plaintiffs MAXINE CEARLEY et al., and RICHARD F. GERRY appeared as counsel for plaintiffs KATHRYN FLEMING et al. JOSEPH T. COOK of the Department of Justice, and MICHAEL QUINTON, Assistant United States Attorney, appeared as counsel for the defendant UNITED STATES OF AMERICA.

Said cause having been heard, evidence both oral and documentary having been introduced, and said cause having been submitted for a decision, the Court, having rendered its decision and Memorandum of Decision on April 2, 1975, in favor of the plaintiffs and against defendant UNITED STATES OF AMERICA, now makes the following Findings of Fact and Conclusions of Law.

**FINDINGS OF FACT**

1. The air crash at issue in this case is the crash of DeHavilland-Dove Registration Number N4040B, on October 8, 1968, approximately 3½ miles south of McCarron Field, Las Vegas, Nevada.

2. Aircraft N4040B was constructed in the United Kingdom on December 18, 1951, and was entered into the United States.

3. In the year 1965, N4040B and another DeHavilland-Dove aircraft, Registration Number N4041B, were owned and operated by AIR WISCONSIN.

4. In the summer of 1965 AIR WISCONSIN requested AERODYNE ENGINEERING CORPORATION, A Texas Corporation, to install a combustion heater in Aircraft N4040B, and at that time, or on a subsequent date, requested that the same installation be made in N4041B.

5. AERODYNE ENGINEERING CORPORATION submitted an application to the Federal Aviation Agency for a Supplemental Type Certificate (S.T.C.) which would au-

thorize the installation of a combustion heater in aircraft N4040B. Subsequently, AERODYNE ENGINEERING CORPORATION requested a revision of said Supplemental Type Certificate, to allow an identical installation on Aircraft N4041B.

6. Said Supplemental Type Certificate was approved by the Federal Aviation Administration as S.T.C. #SA541SW, and the revision was approved as S.T.C. #SA541SW, Revision 1.

7. Federal Aviation Administration regulations in effect in 1965 required that a Federal Aviation Administration Inspector, or a designated General Aviation District Office Inspector physically inspect the combustion heater installations prior to the approval of the S.T.C. or its Revision 1 before the S.T.C. or its Revision 1 could be approved.

8. AERODYNE ENGINEERING CORPORATION installed Southwind Combustion Heaters 8240A in the forward baggage compartments of said Aircraft N4040B and N4041B.

9. Said installations were done pursuant to S.T.C. SA541SW and Revision 1.

10. Said installations are substantially identical.

11. The combustion heater installations were made by utilizing an existing copper fuel line mounted in the belly of the aircraft that had been part of a hand engine priming system which had previously been replaced with a different priming system.

12. Said copper fuel lines were cut at a point just forward of the sloping bulkhead which separated the passenger compartment from the cockpit and forward luggage compartment (located directly below the cockpit).

13. A stainless steel fuel line was coupled to the copper line with a stainless steel junction block. This stainless steel line was run from the connection at the center belly of the aircraft, up to the left, along the forward side of the sloping bulkhead to the upper left corner of the rear wall of the forward baggage compartment. There was clamped and run forward along the ceiling of the forward baggage compartment to a valve attached to said ceiling. Said valve was controlled by a handle located on the floor of the cock-

pit, to the left of the pilot's seat, between the pilot's seat and the left wall of the cockpit. The handle was metallic and not painted red.

14. From the valve, a stainless steel fuel line was run forward to the combustion heater located in the nose compartment of the aircraft.

15. The stainless steel lines were unsupported by any clamps for the run of approximately 3-½ feet from the junction with the copper fuel line to the clamp at the upper left corner of the rear wall of the forward baggage compartment. There was a grommet around the line where it passed through a stiffening rib of the sloping bulkhead. Grommets are not proper supports for fuel lines, and can lead to concealed damage to fuel lines when the rubber center is worn through and the line rubs on the other metal surface at a point concealed by the outer body of the grommet.

16. The junction block that connected the copper line to the stainless steel line was tied down by a plastic tie, commonly used to bundle and tie down electrical wires in aircraft. This tie-down is not adequate to clamp a fuel line in an aircraft.

17. The above described stainless steel fuel line was installed so that it passed in close proximity to a stainless steel bolt and nut. The separation distance on N4041B was approximately 1/16 inch. The point on the line was a place where the line could interact with the bolt and nut, and cause a rupture in the line.

18. The existing copper line which was used in the heater installation was not annealed when it was connected to the stainless steel line by the fuel junction block. Copper tubing is subject to work hardening when it is shaped and/or subjected to flexion against harder metals, such as stainless steel. If the copper tubing is not annealed, stress concentrations created when it is formed create points where subsequent vibration can lead to fracture and catastrophic failure.

19. The stainless steel lines as installed in N4040B and N4041B were free to vibrate with a fore and aft motion of approximately 3 inches from center in each direction, and

an additional horizontal motion along the face of the sloping bulkhead. This vibrational excursion was greatly in excess of that called for in Federal Aviation Agency regulations, and could have been eliminated by the proper use of clamps.

20. The force inputs into the Dove aircraft, caused by engine vibration, air turbulence, and landing impact shocks, were within the range of vibrations to which the above-described heater installation was susceptible because of the lack of supporting clamps on the fuel lines.

21. The heater installation as installed exhibited numerous design deficiencies that were not proximately related to the in-flight fire and crash at issue herein, but which should have alerted any reasonably competent F.A.A. or G.A.D.O. inspector to the fact that the over-all quality of the design and fabrication on this S.T.C. was not consistent with F.A.A. regulations.

22. The heater installation was unairworthy in that:

A. The stainless steel fuel line was not properly clamped along the approximately 3-½ foot run up the forward wall of the sloping bulkhead, and was free to vibrate to a degree greatly in excess of that vibration that would be allowable under F.A.A. regulations and good design practice. Such vibration could allow chafing of the line on structural members, and also lead to failure due to metal fatigue. Either of these failure modes could result in the release of gasoline.

B. The existing copper tubing was not annealed after being cut, bent upward, and flared to connect it to the stainless steel junction block. The copper line was connected at approximately a right angle to the most severe vibrational excursion of the stainless steel line, so that the flared portion of the copper would be subjected to vibrational work hardening that could lead to the copper becoming brittle and fracturing, causing fuel line failure.

23. The fire began in the area long or immediately below the forward surface of the sloping bulkhead, while the aircraft was in flight. All of the fire damage patterns discovered on those portions of the wreckage which were not in the ground fire area are consistent with the fire commencing at this location. Said fire damage patterns are

inconsistent with any alternative starting point for the fire, such as the wing.

24. The fuel for the fire was initially gasoline.

25. The source of the gasoline was the heater fuel line located along or just below the forward wall of the sloping bulkhead.

26. The gasoline escaped from the heater fuel line because of a failure of that line along, or just below, the forward wall of the sloping bulkhead, due to metal fatigue or chafing caused by excessive vibrations of the fuel line.

27. If the F.A.A. had properly inspected the heater installation on N4040B in accordance with F.A.A. regulations, AERODYNE ENGINEERING would have been required to either remove that installation because it was unairworthy, or to modify the installation to correct the excessive vibration of the fuel line, use of dissimilar metals, and other defects, so as to make the installation airworthy. In either case, the accident at issue herein would not have occurred if a nonnegligent, proper inspection had been made.

28. The F.A.A. personnel or their designees who inspected the heater installation on N4040B were negligent in making the inspection of N4040B.

29. Said negligence was the proximate cause of the inflight fire and crash at issue herein.

30. The type of annual and 100-hour inspections performed by plaintiff DOWDLE and his agents were not intended to check on the airworthiness of installations made under S.T.C.'s authorized by the F.A.A. and inspected and approved by the F.A.A.

31. JACK DOWDLE, doing business as Catalina Vegas Airlines, his agents, servants and employees, did not contribute negligently or otherwise in causing the aircrash which is the subject matter of this action.

32. The plaintiffs UNITED SCOTTISH INSURANCE COMPANY, LTD., BRITISH NATIONAL LIFE INSURANCE SOCIETY, LTD., MINISTER INSURANCE COMPANY, LTD., PHOENIX INSURANCE COMPANY, LTD., HOME AND OVERSEAS INSURANCE COMPANY, LTD., SCOTTISH LION INSURANCE COMPANY, LTD., WURTTEMBERGISCHE FEURER, A. G., and NEW ROTTERDAM INSURANCE COMPA-

NY, LTD., paid certain monies to settle, on behalf of JACK DOWDLE, claims made against him by plaintiffs FLEMING and CEARLEY. Said plaintiff insurance companies are entitled to indemnity from the defendant UNITED STATES OF AMERICA for said sums and their costs and expenses, to be set by the Court in the subsequent trial on damages.

#### CONCLUSIONS OF LAW

1. The installation of the combustion heater in N4040B was subject to F.A.A. approval, and said approval required an inspection by F.A.A. personnel or their designees.
2. The F.A.A. personnel or their designees negligently inspected the heater installation in violation of F.A.A. regulations.
3. Said negligent inspection was the proximate cause of the in-flight fire and crash of N4040B at issue herein, and the damages suffered by all plaintiffs herein.
4. The defendant UNITED STATES OF AMERICA is liable to all plaintiffs herein for all damages caused to each of them by the negligence of the defendant and its agents in causing the aircrash which is the subject matter of this action.
5. To the extent that any of the Findings of Fact set forth above are deemed to be Conclusions of Law, or to the extent that any of the foregoing Conclusions of Law are deemed to be Findings of Fact, the same shall be deemed to be Conclusions of Law or Findings of Fact, as the case may be.

Dated: 9/11/75

/s/

WILLIAM B. ENRIGHT  
*Judge of the U.S. District Court*  
Presented by:

JAMES H. MILLER  
*Greer, Popko, Miller & Foerster*

RICHARD F. GERRY  
*Attorneys for Plaintiffs*

JAMES H. MILLER  
GREER, POPKO, MILLER & FOERSTER  
1568 Sixth Ave.  
San Diego, Ca. 92101  
*Attorneys for Plaintiffs*

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF CALIFORNIA

CIVIL NO. 70-138-E

MAXINE CEARLEY, ET AL., PLAINTIFFS,

v.

UNITED STATES OF AMERICA, DEFENDANT.

JUDGMENT AFTER TRIAL BY COURT

This cause came on regularly for trial on January 29, 1975, in the above-entitled Court, the Honorable WILLIAM B. ENRIGHT, Judge Presiding, sitting without a jury, and was actually tried on said date and subsequent dates. Plaintiffs appeared by attorney JAMES H. MILLER and defendant UNITED STATES OF AMERICA appeared by JOSEPH P. COOK of the United States Department of Justice, and MICHAEL QUINTON, Assistant United States Attorney. Evidence both oral and documentary was presented by both parties, the cause was argued and submitted for decision and the Court adopted the Findings of Fact and Conclusions of Law proposed by the plaintiffs.

WHEREFORE, IT IS HEREBY ORDERED, ADJUDGED AND DECREED that plaintiffs jointly have judgment against defendant UNITED STATES OF AMERICA in the amount of \$150,000.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED that in addition to the above plaintiff MAXINE CEARLEY have judgment against defendant UNITED STATES OF AMERICA in the amount of \$15,000.00.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED that in addition to the above plaintiff KAREN CEARLEY have judgment against the defendant

UNITED STATES OF AMERICA in the amount of \$17,500.00.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED that in addition to the above plaintiff CHARLES N. CEARLEY have judgment against the defendant UNITED STATES OF AMERICA in the amount of \$17,500.00.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED that plaintiffs have judgment against defendant UNITED STATES OF AMERICA for their costs and disbursements in the amount of \$\_\_\_\_.

Dated: 3-22-76

WILLIAM B. ENRIGHT

*Judge of the U.S. District Court*

Judgment entered on Mar 26, 1976.

CEARLEY—HEARING 6/10/80  
IN THE UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF CALIFORNIA

Case No. 70-0138-E

71-0036-E

71-0037-E

71-0038-E

71-0039-E

MAXINE CEARLEY, ET AL., SCOTTISH INSURANCE CO., ET AL., KATHLEEN M. FLEMING, ET AL., SIMONE WEAVER, ET AL., JOHN WILLIAM DOWDLE, JR., PLAINTIFFS

v.

UNITED STATES OF AMERICA, DEFENDANT

REPORTER'S TRANSCRIPT OF PROCEEDINGS

San Diego, California

June 10, 1980

D. JOAN KING, OFFICIAL REPORTER

*CSR License Number 2335*

*United States District Court*

*940 Front Street*

*San Diego, California 92189*

*Telephone: (714) 234-7029*

SAN DIEGO, CALIFORNIA, TUESDAY, JUNE 10, 1980,  
9:00 A.M.

[3]THE COURT: All right, Mr. Clerk.

THE CLERK: Yes, your Honor.

Number two on the calendar, Cases Number 70-0138-E, civil, Maxine Cearley, et al., versus United States of America, Number 71-0036-E, civil; Scottish Insurance Company, et al., versus United States of America; 71-0037-E, Kathleen Fleming, et al., versus United States of America, 71-0038-38-E; Simone C. Weaver, et al., versus United States of America; and Case Number 71-0039-E, civil, John William Dowdle, Jr., versus United States of

America, for hearing on remand from the U.S. Court of Appeals.

THE COURT: Good morning, ladies and gentlemen.

MR. GERRY: Good morning, your Honor. Let the record show that the plaintiffs are ready, and that Richard F. Gerry and Marcia Hughes represent all of the plaintiffs, with the exception of the Cearleys, and that they are being represented by Mr. James Miller.

THE COURT: All right, and I note the presence of Mr. Miller.

MR. QUINTON: Assistant U.S. Attorney Michael Quinton for the United States.

THE COURT: Ladies and gentlemen, fine. Are you ready to proceed?

[4] MR. GERRY: We are ready to proceed, your Honor, but I think maybe we would like a little bit of guidance from the Court as to how the Court would wish us to proceed.

THE COURT: All right.

MR. GERRY: I received a call yesterday from Mr. Quinton. We have come here today prepared to present testimony from some witnesses. Mr. Quinton, I believe, is somewhat surprised by that, from what he told me yesterday, and I had understood that today was the time for further trial.

Even considering the fact that I believe it is the time for further trial, we still would appreciate some indication from the Court as to the scope that the Court thinks that further trial would require. Understanding the remand, as we do, we feel that our evidence will be mainly aimed at the one aspect of the good Samaritan rule. That would be reliance on behalf of the specific and general people involved; and I believe that we are prepared to go forward and commence that today. I don't know what the Government's position on that is, or, unlike most situations, we have had no pretrial, of course.

THE COURT: All right. Fine.

Let me hear from Mr. Quinton, and then I will be happy to resolve it.

MR. QUINTON: Yes, your Honor, if it please the Court, Assistant United States Attorney Michael Quinton for the defendant, United States.

[5] I talked to Mr. Gerry yesterday, after I had talked to Mrs. Boisseau; and at this time, when I talked to Mrs. Boisseau, I heard for the first time that there might be further testimony offered.

The reason I was surprised, is that it doesn't appear to me that the plaintiffs' briefs contemplate the presentation of any further testimony or any further evidence of any kind.

The last paragraph of the plaintiffs' trial brief—that is the first brief submitted by the plaintiff—says that they will ask the Court to make additional findings without giving any proposed findings.

The plaintiffs' rebuttal brief was based almost entirely upon, again, talking about the negligence, *per se*, arguments, and bringing up a new case, the *Griffin* case, of which the plaintiffs thought it would be necessary to advise the Court.

The focus of the briefs submitted by the plaintiffs were, as pointed out in the defendant's brief, almost entirely devoted to the negligence *per se* argument; that is their argument that a violation of the Federal Aviation Regulations by an employee of the United States is negligence, *per se*, and requires finding of liability by the Court.

I came here—or at least as of yesterday, I was prepared to argue that point; and I think that that contention [6] is adequately disposed of in the text of the opinion remanding the case back to this Court. I did not contemplate the taking of any further testimony. As, of course, the Court knows, there has been no submission of any further memoranda of contentions of fact and law by either side. There has been no pretrial order submitted for focusing the issues which the Court might decide at this time.

At this point, I have no clue as to what the plaintiffs might offer to the Court and what further evidence they might intend to ask the Court to hear. Had I been advised of the fact that the plaintiffs would be offering further testimony by their briefs, then I would have attempted to have undertaken some discovery and to have gotten, per-

haps, some expert advice of my own; but, as of yesterday, I was advised for the first time that there would be an offer of testimony and further evidence to be submitted by the plaintiffs.

THE COURT: All right. Thank you.

Well, gentlemen, I find myself agreeing with both of you, and I will tell you what I conceive the function to be.

As you know, since the remand, I have asked counsel to submit briefs relative to those issues that they feel remained after the remand; and I certainly contemplated that either party may desire to present additional evidence. I think the remand shifted the focus, relative to the liability [7] issue; and I think both parties would be then entitled to present additional evidence in view of the nature of the remand from the Ninth Circuit.

I can understand Mr. Quinton's concern now. I didn't anticipate the formalism of a pretrial conference relative to additional testimony. I thought that, if either party desired to present additional testimony today, that would certainly be appropriate.

I think, gentlemen, when I say I agree with both counsel, I agree with Mr. Quinton that the remand from the Ninth Circuit, I think, focused the entire inquiry, now, on the good Samaritan doctrine.

Negligence, per se, I think, has been resolved by that decision.

I agree with Mr. Gerry on the nature of the focus now. I think, after reading the briefs, if you are looking for direction from me, I think the remand dealt with three areas: which state law applies, whether that state has adopted a good Samaritan rule, and, if so, whether the plaintiffs' case satisfies the elements of the rule.

There has been a discussion in the briefs about the laws of California and the laws of Texas. I would think, in the final analysis, that the laws of California would probably be applicable, utilizing the laws of Texas; but I think it's almost an academic discussion, because both Texas [8] and California have a good Samaritan doctrine and employ the test as enunciated by the restatement. So, I think that we come to the same focus, whether or not this plaintiffs' case

satisfies the elements of the good Samaritan doctrine to permit recovery; and I also have a tendency, as I read that test, the essential inquiry, as to whether or not the failure to exercise care would increase the risk of the harm; or, secondly, whether the harm was suffered because of the plaintiffs' relying upon the undertaking.

I would think that the plaintiff would have a very difficult role in establishing that the failure to exercise care increased the risk; and I would think the focus in this case now, and I would think additional evidence would be permitted for either side in that regard, would be on the question of reliance; so, if either party desires to present testimony as to reliance, I think that that's well within the parameters of the remand.

Now, that's where I am, gentlemen; and, in my brief remarks, I have indicated my position on some of the legal issues raised by the remand.

I only do that on a tentative basis, so that you can at least be aware of my thinking concerning the case; and I really do think that the issue is a very narrow one now, and it's whether or not the plaintiffs' case can show reliance, under the good Samaritan doctrine, as set out in the law of [9] both Texas and California.

Now, having said that, do you have any substantial quarrel with what I have just said, as to the focus, Mr. Gerry?

MR. GERRY: No, I don't, your Honor, except, of course, that I have some disagreement with the ability to show increased risk. I appreciate your Honor's comments. I think that we were ready to focus our attention on reliance here today.

THE COURT: You have, then, no quarrel, really, with what I have said, and I won't limit your evidence on increasing the risk, if that be your—or to hear argument on that point, sir.

All right. Now, Mr. Quinton, having in mind what I just said, do you have any real quarrel with what I have said?

MR. QUINTON: No, your Honor. I agree completely, except, of course, we contend that Texas law applies. That's covered in the briefs. I agree, it doesn't make a lot of difference, frankly; but, as to what we are supposed to

be deciding here today, I did not know whether Mr. Gerry was going to claim increased risk or not. That was one of my concerns, frankly, when I was standing up here talking. I did not know whether he was going to present some evidence that there was a modification, as in our need, insisted upon by the inspector. That would be a surprise to me, a totally new [10] issue in the case.

I agree that reliance is the essential element, and that the inquiry should focus on that; and I might add that it is our contention that the reliance must be by the insured party and not by the plaintiff; if the plaintiff in the suit be different from the injured party, that the injured party is the one who must have relied upon the conduct.

THE COURT: We'll deal with that within the confines of the evidence and the discussion.

Gentlemen, that being so, I think we now have reached an understanding. At least there is no quarrel with my statement that I have heard; and it's now how best to proceed.

MR. QUINTON: If I may ask one indulgence of the Court.

If we get to the point where I feel that it would be helpful to have some discovery on what has been presented, I would ask leave of the Court at that time to reserve further cross-examination or reserve cross-examination entirely, or to reserve the right to present evidence at some later time.

THE COURT: All right. Now, I don't think that's an unreasonable position at all, Mr. Quinton; so that, if it doesn't do any disservice to the parties, I would like to hear whatever evidence you care to present today, Mr. Gerry.

You may reserve further cross-examination, if you [11] like, Mr. Quinton, and I would give you, if you desire it, a continued date so that you may either present additional evidence, or continue with any reserved examination.

Is that a satisfactory procedure to you?

MR. QUINTON: Yes, your Honor.

THE COURT: Is that a satisfactory procedure, Mr. Gerry?

MR. GERRY: It is, your Honor, with one possible exception.

We would like to present to the Court additional evidence by Mr. Holladay. We are unable to do that today because Mr. Holladay is in—

THE COURT: You may have that right.

MR. GERRY: He is out of the country.

THE COURT: You may have that right, sir.

MR. GERRY: So, what I would suggest is that, if counsel would like additional discovery as to Mr. Holladay, possibly we can do that before we present this testimony at the time next time.

THE COURT: That is fine. I would think that is a reasonable position, also.

So, let's do this, gentlemen, then.

You may present your testimony today. I will permit you to reserve for further testimony, specifically Mr. Holladay. If you will present him, I am sure that Mr. Quinton may want to examine him prior to that time, and I [12] am sure reasonable arrangements can be made for that purpose, and you may revere the right to further cross-examine the witness presented today, Mr. Quinton, and also present additional evidence.

We'll set that date at a reasonable time for both your calendars.

All right. With that in mind, Mr. Gerry, do you desire to present evidence at this time?

MR. MILLER: Your Honor—

MR. GERRY: There is one other thing, however.

In your Honor's statement, I believe you were looking at three twenty-three of the restatement, which has the two elements—(a) failure to exercise such care increases the risk of harm, and, (b) the harm suffered because of the other's reliance, and your Honor did not direct his attention to three twenty-four (a), which has a third element, and that is that the actor has undertaken to perform a duty owed by the other, to the third person, and I think that that is present in this case, where the Government has undertaken the duty owed by the carrier to the third persons here.

THE COURT: All right. In any event, certainly you may proceed on that basis, and I will be happy to hear argument on that basis.

Mr. Miller?

MR. MILLER: Yes, your Honor. One point. I have a brief [13] appearance in State Court at 11:15. I wondered if I might be excused briefly. Our arrangement is that Mr. Gerry is going to do most of the—

THE COURT: Is it satisfactory for your purposes, Mr. Miller, that Mr. Gerry represent your interest and that of your client during your absence?

MR. MILLER: Yes, it is.

THE COURT: Is that agreeable to you, Mr. Gerry?

MR. GERRY: Yes, it is, your Honor.

THE COURT: All right. We'll proceed on that basis, and you may come and go as you like, Mr. Miller.

All right. What do you contemplate this morning, Mr. Gerry?

MR. GERRY: I would contemplate, first, just a short statement to put this matter back in focus.

Then, we have here today three witnesses. We have Mrs. Cearley, one of the plaintiffs herein; Mr. Schossow, S-c-h-o-s-s-o-w, who is, and was, at the time, a mechanic for the specific airplane, and for the airline; and Mr. Dowdle, who was the owner of the airplane.

Their testimony will not be long, I don't contemplate, and I think that we'll be able to finish fairly rapidly.

THE COURT: All right. Fine.

You may proceed, sir.

MR. GERRY: Your Honor, before we call any of the witnesses, [14] I would like to recall to your Honor the testimony of Mr. McMillan, who was the Government witness—

THE COURT: Can you do me one favor, Mr. Gerry?

What was the date of the trial or his testimony, approximately?

MR. GERRY: If the Court will indulge me just a moment, I have to get to the record.

(Pause.)

MR. GERRY: The testimony appears or begins on page 415 of the Reporter's Transcript of Proceedings on Appeal; and the date. That's Volume II of the transcript. The date appears on the front of the volume, as January 30, 1975.

Now, I am not so intimately aware at the moment of this, as to know whether that goes through the entire transcript or not.

Your Honor, this instrumentality of this tragic accident was, as you remember, a Southwind gasoline-fired heater, which was installed by Aerodyne in Dallas, Texas, and was inspected by the Government in Dallas, Texas.

Mr. McMillan, who was in charge of that procedure, testified that—by deposition, which was read into the record—that there were two methods by which a supplemental type certificate, which this called for, major modification, could be handled.

One, and the one that would be used, if the [15] supplemental type certificate modification was to be used, and in a great many aircraft, would be for full engineering drawing specifications, to be presented to the Government, whose engineers would go over the drawings and specifications and approve or disapprove the document and finally, there would be a supplemental type certificate issued.

Then, following that, the mechanics, at the repair stations, using the supplemental type certificate, the engineering drawing and specifications therein, would make the modification to the aircraft on a form 337 and would present this to—either to a designated aircraft inspector or to an FAA inspector for approval; however, in single-aircraft modifications, which this essentially was, although there were two aircraft modified the same—in single-aircraft modifications, because of the mechanics involved, the FAA did not always follow that procedure, but had another authorized procedure, which was to permit the—an as-installed modification and inspection.

Under those circumstances, Mr. McMillan testified that it was essential and part of the procedure for a Government inspector to go to the aircraft and approve the STC by inspecting the aircraft and seeing that the aircraft, as modified, with the installed heater, did—was an airworthy modification, and that's what we are dealing with in this

case, unlike the other multiple aircraft modification [16] situations.

In this case, your Honor, it appears clear that a repair station, which repairs or modifies an aircraft, has a duty to inspect any repairs, modifications, installations, as well as to—and to not only do the work properly, but to do the inspection properly.

It would appear that the Government—that they owe that duty, as a matter of common law principles, under the same principles that apply in the case of *Coffey versus McDonnell Douglas*, where the—and that when the Government steps in and takes over that duty, the Government has then assumed a duty such as is contemplated by 324(a), subsection (b), of the restatement of torts, and has undertaken to perform a duty owed by the other to the third person; that is, a duty owed by the repair station to the owner of the aircraft.

It will be, I believe, also, abundantly clear, in this case—it is my understanding, if they do that and are performing a duty owed by the repair station to the third person, that is, the airline, and they do that duty negligently; and, as a result of that negligent performance of that duty owed by the repair station; that is, the inspection of the installation, no reliance by anyone is necessary; and you can found the liability on the assumption of the duty—breach of the duty, causation.

[17] That appears clear that the statement of Justice Wallace in the opinion, that, although he spends the majority of the time discussing the reliance aspect, he states, on page 18, on remand, "The District Judge may well need to determine, one, which state substantive law applies; two, whether that state has adopted or would apply any form of good Samaritan rule; and whether or not the appellee's case satisfies the rule as formulated by that state"; and then, in his footnotes, footnote five, on page 2, he sets forth only 323, but also 324(a), all three subsections of the restatement; so it appears clear that he contemplated the possibility of a proof under any of the subsections of 20—323 and 324(a) of the restatement.

We intend to present evidence, your Honor, which will show that this case, like the cases of *Stork* and *Ingam*, and all of the other four cases, falls within a situation where there is general reliance by the public upon the Government carrying out its duty as—assumed by it, under the Federal Aviation Act and under the Federal Aviation Regulations—its various duties to protect the safety of the traveling public.

We further intend to rely not only on that general duty and general reliance by the public, but also to present evidence through the owner of the aircraft and his mechanic, as to the procedures and the necessity for reliance by the [18] owners and the subsequent repairs of aircraft, upon the previous activities, both by the repair stations and by the Government. It could not be otherwise.

The testimony will be, your Honor, that the aircraft are certified by the Government in the beginning, given an airworthiness certificate. Subsequent thereto, any modifications require certification by the Government; and that any modifications after being carried out, are signed off and inspected by the Government; and that, when a mechanic, when an owner goes to buy an aircraft, the owner looks at the paper work that comes with the airplane.

It's impossible, uneconomical, and unreasonable to think that a—before you could buy an airplane, you would have to tear the entire airplane down and inspect it entirely. There are many places on an airplane which you can't find. You can't inspect all the engines. There are airworthiness directives that come down on the aircraft, its engines, and various parts; and those airworthiness directives have to be complied with by the mechanics, as they go along; and, when you are talking about older aircraft, an aircraft may accumulate many, many of those. Many of them may be hidden inside the engine or inside the aircraft, where you can't find them; and the lone thing that the purchaser of an aircraft or the repairman can do it to rely on paper work that has gone before, check the list of airworthiness [19] directives which he has, check to see that those have been signed off by an authorized mechanic, or inspector, and his stamp and number and signature is on there.

Once that happens, the evidence will be clear that the entire industry relies on that paper work.

In this case, part of the paper work that accompanied the De Havilland-Dove, purchased by Mr. Dowdle, was the STC and the 27, which has been signed off by the Government inspection, and the evidence will be that Mr. Dowdle, in purchasing the aircraft, clearly relied on that as being an indication that the modification had been approved by the Government and installed and inspected by the Government as approved, and that that was a reasonable reliance under the custom and practice, pertaining in the industry.

The evidence will be that Spider Aircraft and the owner thereof, Frank Schossow, Jr., were retained by Mr. Dowdle to go back and look over the airplane; and that Mr. Schossow did go back there to pick up this aircraft. He looked at all the paper work. He looked at the paper work dealing with the Southwind Heater. He found that paper work to be in order; and he therefore relied upon it and did not tear the aircraft down, take the plates off of the bulkheads, expose the whole aircraft, in order to determine whether or not it had been a proper installation; and that he did so in the [20] usual and normal course of business; that such reliance was reasonable in his normal manner of, not only himself, but all other mechanics who would have been in the same position, and that, therefore, in this case, we have not only the general reliance by the general public; but we also have the specific reliance, in this case, of the owner of the aircraft and of the repair station, Spider Aircraft in California.

Those things, we believe, clearly meet the requirements of the restatement, and it appears imminently clear that California has adopted the restatement rule, and also, imminently clear, that under *Coffey versus McDonnell*, 8 Cal 3551 (1972) the heart of the good Samaritan rule in California is that, if a private party, McDonnell, for example, undertakes, without necessity, undertakes an inspection, and conducts that inspection negligently, that that party is then liable.

With that, your Honor, that concludes my opening statement. If counsel does not have an opening statement, I am ready to call the first witness.

THE COURT: All right.

Did you desire to make any kind of brief statement, sir, or reserve it?

MR. QUINTON: I would like to reserve it.

THE COURT: All right. You may.

You may call your witness, sir.

[21] MR. GERRY: Mr. Schossow, would you come forward and be sworn, please.

THE CLERK: Do you solemnly swear that the evidence you shall give in the cause now before the Court shall be the truth, the whole truth, and nothing but the truth, so help you God?

MR. SCHOSSOW: I do.

**FRANK WAYNE SCHOSSOW, JR.,**

called as a witness by the plaintiffs, having been first duly sworn, testified as follows:

THE CLERK: Please take the stand, sir.

State your name, spell your last name for the record.

THE WITNESS: Frank Wayne Schossow, Jr.,  
S-c-h-o-s-s-o-w.

#### **DIRECT EXAMINATION**

**BY MR. GERRY:**

Q Where do you live, Mr. Schossow?

A My address is 2933 Chicago Street, San Diego.

Q What is your business or occupation?

A I operate Spider's Aircraft Service and Maintenance Facility at Montgomery Field.

Q Do you hold any licenses from the United States Government?

[22] A Yes, all the engine and power plant licenses as a mechanic, and an A.I. authorization card from the FAA.

Q A.I. means authorized inspector, does it?

A Yes.

Q Does your business hold any license?

A My business is an approved repair station by the FAA.

A It is approved for engine and air frame?

A Yes.

Q How long, basically, have you been in the aviation business?

A Since 1949.

Q And you are a licensed pilot?

A Yes.

Q What licenses do you hold?

A I hold a private pilot's license with a multi-engine and instrument rating.

Q How long have you been flying?

A Since 1946.

Q With whom did you start your aviation?

A Gibbs Flying Service.

Q How long have you owned your own repair station?

A October, 1954.

Q And that repair station is located at the west end of Montgomery Field, is it?

[23] A Yes.

Q During the course of your business at Spider's Aircraft, have you had occasion to be retained by Mr. Dowdle and any of this companies to maintain his aircraft?

A Yes.

Q How long have you been doing that?

A Since about 1955.

Q And during that period of time, have you maintained De Havilland-Doves for him, amongst other things?

A Yes.

Q And, including the De Havilland-Dove which was involved in the accident that we are involved with?

A Yes.

Q Did you, in fact, at his request, go to Wisconsin and participate in the transport of that Dove from Wisconsin to San Diego at the time that Mr. Dowdle purchased it?

A Yes, I did.

Q With whom did you go back there?

A A took one of my employees and one of Mr. Dowdle's employees.

Q And when you arrived there, did you, in fact, inspect 4040 Bravo?

A Yes, we did. We spent two days back there.

Q Did you review the paper work on the aircraft?

A Yes, we did.

[24] Q Mr. Schossow, when you go to—you have bought a number of airplanes, haven't you?

A A few, yes.

Q When you buy those aircraft, do you look only at that aircraft, or do you also look at the paper work?

A We look at both.

Q Why do you look at the paper work?

A Well, if you can't fly it, the paper work isn't right.

Q Of what does the paper work consist?

A Well, the necessary paper work is the registration and the airworthiness certificate and the airplane book and the engine or engines' logs, books, and all the operating history, including the repair and alteration forms since that airplane was in use.

Q The repair and alteration forms, do those include a form known as a form 337 for any modifications or alterations?

A Yes. That is the number of the repair form.

Q Is such a form required by the Federal Government before any major alteration or repair can be made to the aircraft?

A Yes.

Q Did you, when you—when you find an aircraft that has such modifications, do you then go to the aircraft, tear it down, and inspect to determine that that modification was in [25] fact done?

A Not always, no.

Q Do you rely on the paper work, then in your review of the aircraft?

A Yes, you do.

Q When you were at the—where did you go—to Wisconsin to pick up this airplane?

A Yes. Allegheny County Airport in Wisconsin.

Q When you were in Wisconsin to pick up 4040 Bravo, did you, in fact, review the paper work on that aircraft?

A Yes, we did, at this time.

Q Did you find a 337 regarding the modification of the aircraft by the installation therein of a Southwind Heater?

A Yes, we did.

Q Did you review that paper work?

A Yes, we did.

Q Was it in order?

A It certainly was, yes.

Q Did it show that the work had been done?

A Yes.

Q Did it show that the installation had been inspected by an FAA inspector?

A Yes, it did.

Q And did you rely on that as being correct then?

A Yes.

[26] Q Did you go to the aircraft and tear it apart to check that out?

A No, we did not.

Q Is that the usual and normal course of events that you do rely on those documents, as they are presented to you?

A Yes.

Q When you are given an aircraft for a hundred-hour inspection, an annual inspection, or any other inspection, do you or other people in your position—are you required to check that aircraft to determine that it has—that all airworthiness directives have been complied with?

A Yes.

Q Do you do that by checking the airworthiness directives against the airplane, or the airworthiness directives against the paper work?

A The paper work, mostly.

Q And if you find that a mechanic has signed off, as complied with, an airworthiness directive, has put his stamp with his number, and has signed his name, are you required, as—by any regulations of which you are aware, to go behind that paper work and look at the airplane?

A No.

Q And, is that so also of 337 modification forms?

A Yes. That is the same.

Q And that is exactly what you did in this case, look [27] at the form, rely on it, and rely on the people that had installed and inspected that heater, to do the job in an air-worthy fashion?

A Yes.

MR. GERRY: Nothing further, your Honor.

THE COURT: You may inquire, sir.

(Pause.)

MR. GERRY: Oh, there is one other—pardon me.

#### DIRECT EXAMINATION (Resumed)

BY MR. GERRY:

Q Do you consider that, then, to be a duty that you owe, as a repair station, to Mr. Dowdle, to check the paper work?

A Yes.

Q And if you were the one to make the modification on the aircraft, would you owe him a duty not only to install or have your mechanic install such a heater properly, but also to inspect it and sign it off?

A Yes.

MR. GERRY: Nothing further.

THE COURT: You may inquire, sir.

#### [28] CROSS-EXAMINATION

BY MR. QUINTON:

Q When you went back to Wisconsin to pick up the airplane, Mr. Schossow, this was in 1966, was it?

A Probably. It was some time ago.

Q In the late fall of 1966?

A Yes.

Q I believe you said in your testimony at trial, it was during the deer hunting season?

A Yes, it was back there.

Q Isn't that traditionally in the fall, October, November, that time of year?

A I don't know for sure.

Q You said in your testimony at trial that you flew the airplane out to San Diego from Wisconsin, that you used that combustion heater?

A Yes, we did.

Q Because it was cold?

A Right.

Q Didn't you check out that heater thoroughly before you left Wisconsin because you knew you were going to need it?

A Well, the heater worked. That's all I could tell you. It worked properly at the time.

Q Did you take a test flight of the plane before you started your trip out?

[29] A Yes, we did.

Q You took the plane out and flew it around for an hour or so to make sure everything worked?

A About 45 minutes, yes.

Q Did you check out the heater at that time, too?

A The heater was on, yes.

Q Well, how did your inspection of the airplane at this time—you said it took approximately two days—how does that compare with a regular hundred-hour inspection or annual inspection, as to thoroughness; that is, was it more or less thorough?

A The airplane was undergoing a hundred-hour inspection when we arrived back there; and the crew had gone hunting the day we got there. The next day they came back and finished up the airplane, and we took it out and flew it. It was their inspection. We simply reviewed what they had been doing and the paper work, and took a test flight in the airplane and started home the next day.

Q Did you conduct any further inspection of the aircraft on your own?

A Only getting acquainted with the airplane.

THE COURT: I missed that, sir. Let me—what did you say? It was someone else's inspection, sir?

A THE WITNESS: The airplane was undergoing an inspection by Air Wisconsin when we arrived there.

[30] THE COURT: And then you conceived your role to be what, relative to an inspection?

THE WITNESS: We went back there to learn what we could from these people of this type airplane, and they just acquainted us with the airplane, and we reviewed all the paper work on it, the work they had done, and took it out and test flew it; and the next day, we loaded all the spare parts up and flew it back to San Diego.

BY MR. QUINTON:

Q As I understand your function, sir, you are hired by Mr. Dowdle to go back there and check out the airplane to make sure the airplane was acceptable, just as you would have the car mechanic check over a used car?

A Yes.

Q He was interested in the number of hours in the engine, number of hours in the air frame, general condition of the airplane?

A Yes.

Q Did you—well, did any FAA inspectors conduct any examination of the aircraft at that time; that is, at the time that you picked it up from Air Wisconsin?

A None that I know of, no.

Q During all the time—well, strike that.

As I understand it, then, Mr. Schossow, you performed all of the routine maintenance during the time that that [31] aircraft was in San Diego, from the time that Mr. Dowdle accepted it until the time it crashed?

A That is correct.

Q Approximately two years?

A Yes, sir.

Q During that time the airplane flew approximately eight hundred to a thousand hours?

A No idea how long it flew.

Q Well, if I asked you to, if I were to inform you Mr. Dowdle has so testified, that it was some eight hundred to a thousand hours, approximately four hundred to five hundred hours per year, that would mean that you performed some eight to ten one-hundred-hour inspections?

A Yes.

Q And at least one, possibly two annual inspections?

A Yes.

Q So that would be a total of ten to twelve, at least eight times, that you inspected that airplane?

A Yes.

Q During all of that time—that is, that two years—did an FAA inspector ever inspect that aircraft?

A Well, the air taxi inspectors in our area, I am sure, looked at it on several occasions.

Q Yes, sir. I am not talking about a pilot inspection. I am talking about a maintenance-type inspection, by someone [32] who is interested in the air frame?

A Well, as an air taxi operator, the FAA maintenance people inspect them periodically, yes.

As to how many times on this specific airplane, I have no idea.

Q Did you consider it your primary responsibility to maintain that aircraft?

A Yes.

Q You did not consider it the FAA's responsibility to periodically inspect it and make sure the aircraft was airworthy?

A No.

Q And, when you performed modifications, they are then subject to supplemental type certificates. Do you consider it your primary responsibility to make sure that those modifications are airworthy?

A If we do the modifications initially, yes.

Q Even though it may also be inspected by an FAA inspector?

A Yes. If we are the installer or modifiers, we certify it first, and they certify it second.

Q That is the practice in the industry, as far as you know?

A Yes.

Q Has that been the practice at least since 1949, as [33] far as you know?

A Yes.

Q To your knowledge was that the practice of this modification—that is, Aerodyne inspected the heater installation, and then the FAA inspector inspected the heater installation?

A Yes. That would be the normal procedure, yes.

Q Do you know of any reason why that normal procedure would not have been followed in this case?

A No.

Q So, when you say you looked at the forms and you relied on those forms, you were relying not only on the inspection by the FAA, but also on the qualifications, integrity, and the engineering ability of Aerodyne Engineering?

A Yes.

Q Do you know the reputation of Aerodyne in the aviation industry, Mr. Schossow?

A I know it's a big-name outfit. I have no connection with them, have never done any business with them.

MR. QUINTON: Thank you. No further questions.

THE COURT: I had a question or two, sir.

When you went back to Wisconsin, specifically now, relating to the heater, did you, yourself, inspect that heater installation?

THE WITNESS: I saw it. It's a British-made airplane with [34] an American-made heater; and we were curious as to why, because the airplane normally had exhaust heaters from each engine; and they explain that, back in the cold country they had to have more heat; so it actually had three heaters in it.

THE COURT: All right.

So, relative to your inspection on behalf of Mr. Dowdle, and forgetting the balance of your review or your physical, visible inspection, can you tell me specifically what you did relative to that heater installation? Did you examine the paper work? Did you physically examine the entire installation? What did you do with that?

THE WITNESS: Well, we examined the paper work on it; and it was installed in the lower baggage compartment, right in sight, where you could see it, and we look at it to see what size it was and how much space it took up, and it actually was a gasoline-fired heater. We didn't tear anything apart, uncover anything, follow any lines back to the fuel tanks or anything like that.

THE COURT: Did you examine the paper work relative to the modification?

THE WITNESS: The only paper work that was with the airplane is form 337.

Whatever drawings and engineering that may have taken place ahead of that was not made available to us.

[35] THE COURT: In the course of any of your subsequent examinations or inspections, did you have any further examinations of this particular installation, the heater unit?

THE WITNESS: Well, we saw the heater each and every time the airplane was—hundred-hour or annual, yes.

THE COURT: Did you ever have anything to do with it, aside just from generally observing it?

THE WITNESS: No, sir.

THE COURT: Did you ever follow the lines back and so forth, things of that sort?

THE WITNESS: Not on this airplane, no.

THE COURT: When you testified before, you talked in terms of, I believe, not observing any chafing on any of the lines, relative to this installation?

THE WITNESS: No. I remember it was a stainless steel line from the heater, back to where they pick up the fuel; and, of course, on the sister airplane, which is identical, we did a lot of inspecting later, after the crash of the airplane.

THE COURT: But, in your examination relative to the lack of chafing, am I to assume that you followed the lines all the way back through the entire installation?

THE WITNESS: The lines went back to the main spar, and then there was a big clamp arrangement where all the lines for oil and pressure and manifold and everything went from the [36] cockpit out to the engines, and it blended right into all the rest. It was secured to the wing spar.

THE COURT: All right. Thank you.

Mr. Gerry, anything further?

#### REDIRECT EXAMINATION

BY MR. GERRY:

Q Mr. Schossow, when the line led after from the heater to the afterpart of the baggage compartment, where it passed behind a plate against that after-baggage compartment bulkhead—right?

A Yes.

Q —and, a normal inspection, you didn't take that plate off and look back there, did you?

A No.

Q All right. That isn't part of a regular inspection?

A No. That's just an access to the plumbing back there, if you have a problem.

Q So that that wasn't part of your hundred-hour inspections to look at that line all the way along, was it?

A No.

Q If the inspector had not signed that form off, would you have then been dutybound to check out that heater and get it inspected properly?

MR. QUINTON: Excuse me. I am going to object to this [37] question as being vague. I don't know which inspector he is talking about.

THE COURT: No. If you understand it, sir, if that be your question—if you understand the question, sir, you can answer it.

THE WITNESS: If the heater had not been legally installed in the aircraft, we would not have accepted the aircraft at Wisconsin.

MR. GERRY: Thank you, your Honor.

THE COURT: Anything further?

#### RECROSS-EXAMINATION

BY MR. QUINTON:

Q In relation to the last question, I assume Mr. Gerry must be referring to the FAA inspector signing the heater installation off. Your concern is not with the airworthiness of the aircraft, per se, but, simply with the failing in the legality of the paper work. Isn't that correct? That is, you would not have accepted the aircraft for the reason that the airplane could not legally operate without all of the proper paper work?

A That's right. Yes.

Q It has nothing to do with whether or not the heater is, in fact, airworthy?

A That's right. The heater worked and the paper work [38] was all proper when we accepted the airplane.

Q Well, maybe I can word the question a little differently.

The heater can work and can be perfectly airworthy; but, if the paper work is not in order, then you can't legally fly the airplane. Isn't that what you mean?

A That is true, yes.

Q So, that was your concern, really, that the airplane had to be legal, not that the airplane had to be airworthy?

A Well, primarily, we were looking at the condition of the airplane and its paper work as one. We can't separate them.

Q But, if an inspector does not sign an inspection sheet, that does not tell you anything about the airplane?

(Pause.)

A Well, we couldn't legally fly an airplane that had equipment in it that wasn't signed off by somebody in the FAA when it isn't part of the original airplane, when it is a modification.

Q Yes, sir. But if—

MR. QUINTON: I will withdraw the question.

THE COURT: Is there anything further of this witness?

MR. GERRY: No, your Honor.

THE COURT: If not, thank you very much, sir. You may step down, and you may be excused, sir.

[39] (Witness Schossow stepped down.)

THE COURT: Is this a convenient time, Mr. Gerry, to take our morning recess?

MR. GERRY: Your Honor, if we could, I think that Mr. Miller could put his witness on now, and then he could go at 11:15, if we could take our recess then.

THE COURT: Will this be a short witness?

MR. GERRY: Yes, your Honor.

MR. MILLER: Yes, your Honor. Mrs. Cearley will be, your Honor.

THE COURT: All right. Certainly.

THE CLERK: Raise your right hand, please.

You do solemnly swear that the evidence you shall give in the cause now before the Court shall be the truth, the whole truth, and nothing but the truth, so help you God?

MRS. CEARLEY: I do.

MAXINE CEARLEY,

called as a witness by the plaintiffs, having been first duly sworn, testified as follows:

THE CLERK: Would you state your name and spell your last name for the record, please.

THE WITNESS: Uh-huh. I am Maxine Cearley, C-e-a-r-l-e-y.

[40] DIRECT EXAMINATION

BY MR. MILLER:

Q Mrs. Cearley, your husband, who was killed in this aircraft, he was an engineer with General Dynamics. Is that correct?

A That is true.

Q And prior to his working for General Dynamics in the San Diego area, he had worked for them in Texas. Is that correct?

A Yes. That is true.

Q And, in Texas, the product that they were manufacturing was aircraft rather than missiles, was it not?

A Yes. It was the B-36.

Q And he—how long did he work on the aircraft as opposed to missiles portion, General Dynamics work?

A Well, he was working for Convair in Fort Worth since—I believe it was '49 he started working for Convair.

Q And then, at what point in time did you come to San Diego?

A In June of '56.

Q Now, calling your attention to—I am asking you to go back in time now quite a long way. We are talking about before 1968, the time of the air crash. Were you aware of the Government playing any role in the safety of airplanes that carried passengers for hire?

[41] A Certainly. Every time I traveled by air, I was assured that there was adequate inspection on airplanes. Otherwise—I wouldn't have traveled, otherwise.

Q Was your husband also aware of this, of this fact that the Federal Government was involved in the insuring safety of aircraft, or trying to insure the safety of aircraft?

A Oh, I am sure he was, because of his work with the aircraft industry, and he expected competent inspections of security and safety of the airplane.

Q And, this was—do you believe this to have been his state of mind prior to flying on the airplane when it crashed?

A Certainly.

MR. MILLER: I have no further questions.

THE COURT: You may inquire, sir.

#### CROSS-EXAMINATION

BY MR. QUINTON:

Q Mrs. Cearley, you did not discuss this flight on this aircraft on this date with Mr. Cearley, did you?

A No.

MR. QUINTON: No further questions.

THE COURT: All right. Thank you, ma'am.

You may step down.

[42] Is there anything further of this witness?

MR. GERRY: No, your Honor.

THE COURT: All right. Thank you very much, ma'am. You may step down, and you may be excused.

(Witness Maxine Cearley stepped down.)

MR. GERRY: This would be a convenient time, I think, your Honor.

THE COURT: All right. Thank you.

Let's take a recess. We'll be in recess for 15 minutes. We are in recess now.

(Recess.)

THE CLERK: The United States District Court is once again in session. Please come to order.

THE COURT: Good morning again, ladies and gentlemen.

I would find counsel present; Mr. Miller is now absent.

All right, Mr. Gerry, you may call your next witness.

MR. GERRY: If the Court please, the plaintiffs will call Mr. Dowdle.

THE COURT: All right, sir.

MR. GERRY: Step forward, Mr. Dowdle.

THE CLERK: Please raise your right hand.

Do you solemnly swear the evidence you shall give in the cause now before this court shall be the truth, the [43] whole truth, and nothing but the truth, so help you God?

MR. DOWDLE: I do.

JOHN WILLIAM DOWDLE, JR.,

called as a witness by the plaintiffs, having been first duly sworn, testified as follows:

THE CLERK: Please take the stand, sir.

State your name, spell your last name for the record, please.

THE WITNESS: John William Dowdle. Last name is spelled D-o-w-d-l-e.

DIRECT EXAMINATION

BY MR. GERRY:

Q Mr. Dowdle, you are one of the plaintiffs in this action are you not?

A Yes, sir.

Q And, at the time of the accident with the De Havilland-Dove, 4040 Bravo, you were the owner of that aircraft?

A Yes, sir.

Q And that aircraft was flying under one of your d/b/a names of Catalina Vegas Airlines?

A Yes, sir.

[44] Q Did you purchase that aircraft from Air Wisconsin?

A Yes, sir.

Q And, at the time that you purchased it, did you personally inspect that aircraft?

A No, sir.

Q Did you engage someone else to look at the aircraft for you to determine whether or not it was in airworthy condition before completing the purchase of the aircraft?

A Yes, sir.

Q Who did you retain?

A Mr. Schossow, Spider.

Q And, did you send him to Wisconsin for that purpose?

A Yes, sir.

Q You have purchased many aircraft in your career in the aviation business, haven't you?

A Yes, sir.

Q How long have you been in aviation?

A Since 1946.

Q Do you, yourself, hold any licenses issued by the—any agency of the Federal Government?

A Yes, sir.

Q What licenses do you possess?

A Pilot, commercial, multi-engine, single, sea, land, instrument.

Q You have been flying since '46?

[45] A No. I have been flying since '39; commercially, since '46.

Q Have you had occasion in the purchases of those aircraft to look at the paper work of the various aircraft you have purchased?

A Yes, sir.

Q And do you know what the procedure is in purchasing an aircraft, insofar as the paper work is concerned? What do you look for?

A You look for the compliance of all bulletins or aircraft directives that applied to the aircraft, the conformity that they are signed off, as well as the log book time, the air frame time; that the paper work is the first responsibility.

Q When you look at an aircraft directive or airworthiness directive, an AD, you—this indicates that there is some work that is mandatory that be done before the aircraft can fly, does it?

A Yes, sir.

Q And then you look to see that that AD has been complied with. Is that right?

A Yes, sir.

Q That's in the paper work?

A Yes, sir.

Q If it hasn't been complied with, is that aircraft, by definition, airworthy to fly?

[46] A No, sir.

Q It's illegal to fly it. Right?

A Yes.

Q Now, also, would you, as a—an individual, who is a pilot, who has been in this business a long time, also be worried about the actual airworthiness of the aircraft, if the AD's haven't been complied with?

A No. If the AD is complied with and signed off, that is an indication it's airworthy.

Q But, suppose they weren't complied with and signed off, would you actually worry about the airworthiness of the aircraft?

A Of course.

Q Those AD's are issued by the Federal Government, aren't they?

A Yes, sir.

Q They indicate if something may possibly be wrong with that aircraft, don't they?

A Yes, sir.

Q If a mechanic has not said that he has checked it out and complied, would that indicate to you, if you flew the aircraft, without compliance, without sign-off, that you might be flying an unworthy airplane?

A Yes, sir.

Q Mr. Dowdle, in your advertisement to the general [47] public, as Catalina Vegas Airlines, did you mention any Government approval of your operation?

A Yes, in all of our advertising, we carried that.

THE COURT: Carried what, sir?

THE WITNESS: U.S. Government approval.

BY MR. GERRY:

Q So that—and do your passengers ask you about that?

A Sometimes.

Q You hold a—your business holds a certificate from the Government, as well as you personally holding the certificate. Right?

A Yes, sir.

Q What is that certificate?

A Swift Air Service, Catalina Vegas Airline, d/b/a J.W. Dowdle. It's an air taxi certificate under Part 135 of the Federal Air Regulations.

Q Federal Air Regulations now?

A It used to be Civil.

Q Does that document give the Government the right to inspect your aircraft?

A It certainly does.

Q Do they periodically inspect your aircraft?

A Yes, sir.

Q When they inspect your aircraft, what do they look at?

[48] A Paper work compliance.

Q So that they take the log books, do they?

A Yes, sir.

Q Any alteration forms?

A Yes.

Q If there has been an alteration to the aircraft or a modification to the aircraft that requires a 337 form, does that form have to remain with that aircraft for the life of the aircraft?

A Yes.

Q And then, the FAA inspectors, do they, when they check over the aircraft, look at those forms?

A Yes, sir.

Q Do they make you take the airplane apart to show that the form was actually complied with?

A No, sir.

Q Do they actually go into the aircraft and actually inspect the airplane itself?

A No, sir.

Q They rely on the paper work?

A Yes, sir.

Q Do you carry all persons that come and pay your fares? Do you advertise yourself as a common carrier for hire?

A Yes, sir.

Q And did you see the paper work on 4040 Bravo?

[49] A After return from Air Wisconsin, very briefly, because I depended upon Spider to do my maintenance. That's what he is paid for.

Q Did you see anything wrong with the paper work when you went over it?

A No, sir.

Q If you had been told that a Southwind gas-fired heater had been installed in that aircraft, and there was not a 337 form for it, would you have flown that aircraft?

A No, sir.

MR. GERRY: Nothing further.

THE COURT: You may inquire, sir.

#### CROSS-EXAMINATION

BY MR. QUINTON:

Q Did I understand your testimony, Mr. Dowdle, to be that you did not know whether or not there was a 337 form for the Southwind Heater installed in 4040 Bravo?

A I think you are misunderstanding what I said.

Frank Schossow, Jr., is my maintenance man. He is the one I rely on the paper work simply because that is his expertise. Mine is flying.

Q Yes, sir. You did not inspect—you did not look for a 337?

A I didn't look for anything specifically, because he [50] had already inspected it.

Q Yes, sir. You said that, when the FAA inspects your operation, as I understand, essentially, it's just an audit. Is that correct, sir?

A Well, they usually will sit in the aircraft, go through all of the paper work, the log book, and look for currency, as far as the hundred hours, the annuals, the AD's are complied with.

Q I believe you said the—their inspection is essentially a paper-work inspection or an inspection of—

A Primarily, yes.

Q Who is responsible for preparing the paper work for the FAA?

A Are you talking about the paper that came with the airplane when we bought it, specifically, or any paper work?

The mechanics, the mainenance people.

Q Thank you. People who are working for you?

A Yes, sir.

Q So they can only know what you make available for them to see?

A No. I don't have that paper work. That stays with the airplane.

Q You have been in the aviation business—you have been flying, as I understand it, since 1939, sir?

A Yes, sir.

[51] Q You have been flying for hire since that time?

A Well, as a Navy pilot, during World War II; and after 1936, I established my own business.

Q So, you have seen the role of the FAA, or the CAA, as it was before that, increase during your career from a relatively minor role to what is now a much more active role in the regulation of aviation. Is that right, sir?

A Yes, sir.

Q And when you started flying passengers for hire, of course, you assume that it was primarily your responsibility to assure the safety of your passengers and those who entrust their care to you during flight?

A Yes. As far as maintenance is concerned, that's the maintenance department. Flying is mine.

Q Yes, sir. Do you feel that your obligation is any different, at that time, in 1980, from what it was in 1946; that is, your obligation to assure the safety of your passengers?

A Absolutely. It's the same.

Q Do you feel that the obligation of every other person who works on aircraft and who also has a duty to assure the safety of passengers is the same?

A Absolutely.

Q So, the role of the FAA, in a more strict, regulatory function, you don't feel changes duty?

A No.

[52] Q You don't feel it changes the duty of an installer of an aircraft heater, for instance?

A No.

MR. QUINTON: Thank you. Nothing further.

#### REDIRECT EXAMINATION

BY MR. GERRY:

Q Mr. Dowdle, when you first went into the business of carrying passengers for hire in 1946, there was no FAA. There was a CAA. Right?

A Correct.

Q And at this time, if you wanted to make a modification for an aircraft, it was your duty to make that modification and to—or have your mechanics make it, and to inspect that modification, and to assure that it was an airworthy modification, without any governmental interference.

Wasn't that right?

A I don't follow the question.

We still had the CAA.

Q Yes, but they didn't—you didn't have a 337 form, did you?

A Not to my recollection.

Q The—you would modify the airplane and inspect it and sign it off. Right?

A Mechanics would. Yes, sir.

[53] Q Subsequently, it was changed so that you couldn't modify the airplane without the Government inspecting it and signing it off, wasn't it?

A I don't remember the date, but that's very true.

Q And, at that point, the role changed, and the Government took over for what your mechanic—

MR. QUINTON: Well, I object.

THE COURT: Let him finish the question.

BY MR. GERRY:

Q —what your mechanics used to do and what your inspector used to do. Right?

A Yes, sir.

MR. QUINTON: The question is not a question. It's an argument.

THE COURT: I will sustain the objection as to the form of the question.

You might rephrase your question. The answer may go out.

MR. GERRY: All right.

Q Did the Government then take over some of the functions of the inspectors?

A By "inspectors," you mean—

Q The private mechanic repair station inspectors.

A Yes. They took over the supervision.

MR. GERRY: Thank you. Nothing further.

[54] THE COURT: Anything further of this witness, Mr. Quinton?

MR. QUINTON: Just one question.

#### RECROSS-EXAMINATION

BY MR. QUINTON:

Q Is it still your understanding, Mr. Dowdle, that a repair station that installs a piece of equipment on an aircraft also inspects that piece of equipment after they install it?

A That is correct.

MR. QUINTON: Nothing further, your Honor.

THE COURT: Anything further?

MR. GERRY: Nothing further, your Honor.

THE COURT: Thank you, sir. You may step down, and you may be excused, sir.

THE WITNESS: Thank you.

(Witness Dowdle stepped down.)

THE COURT: Any further evidence on your part, Mr. Gerry?

MR. GERRY: We do not have at this time, your Honor.

We would like to reserve the possibility of calling Mr. Holladay; or, if we can't get him in a reasonable time—I am not sure when he is coming back from Sweden—someone else in his stead.

THE COURT: All right. How much time would you want for that purpose?

[55] MR. GERRY: I would think that we would be able to do ours in half an hour to an hour.

THE COURT: How much time from this date?

MR. GERRY: As I recall, Mr. Miller was in contact with him, and he said that he should be back about the first of July, your Honor.

THE COURT: What are your plans, Mr. Quinton? Will you be presenting any evidence on behalf of the Government?

MR. QUINTON: I don't think so, your Honor. I would, after Mr. Holladay, or whoever plaintiffs care to present, after we discover what he will have to say, we may want to

present some evidence. Based upon what we have heard so far, I don't believe, today—

THE COURT: At this juncture, do you contemplate recalling any of the witnesses who testified this morning?

MR. QUINTON: I don't think so, your Honor. I would like to review their testimony, and have, perhaps, someone in the FAA Legal Counsel's Office review it, so that they may know.

THE COURT: All right.

Well, gentlemen, let's do this, then.

If Mr. Holladay—I will be happy to, say, set this case sometime during the course of July; and I would assume, with one further session, we could complete the inquiry, both as to testimony and as to argument. If Mr. Holladay is to return on the first, or approximately then, [56] and he will be called, I would assume arrangements could be made forthwith for the taking of his deposition, if that is considered appropriate by the Government; and I would also assume that, if the Government desires to recall any of the witnesses who testified this morning, they could so notify Mr. Gerry, and he might make them available.

I would prefer, if we could, gentlemen, say, to set this for the second week in July with the thought that all testimony could be completed that day.

I assume you will have a deposition of Mr. Holladay prior to that time; you would know whether you would want to call witnesses; and I would assume those witnesses will be called on the date that we now agree on.

Does that seem reasonable, Mr. Quinton?

MR. QUINTON: Well, that doesn't give us much time. Mr. Holladay is not going to be back until the first of July, that's a Tuesday, and the second week would be six days later. That would give us a very short time.

THE COURT: I would assume that, if you wanted to deposite him—the only problem I have, Mr. Quinton, I will be gone for two weeks in July. I hesitate to put it over to the end of July, unless there is no alternative. It would be my thought to set it for the ninth.

If we can't go forward and complete it on that day, then it would be my thought to set it, say, on the 30th [57] of July.

Now, given those choices, I assume you would prefer the 30th. Is that correct, Mr. Quinton?

MR. QUINTON: Yes, your Honor.

THE COURT: What about you, Mr. Gerry?

MR. GERRY: Well, I would much prefer the 9th, your Honor, and I would think that Mr. Holladay would be back and his deposition could be taken.

THE COURT: Why don't we do this—let's plan on the 9th, Mr. Quinton, and, if you have some insurmountable problem, I will be happy to consider some additional time; but let's plan on presenting additional testimony on the 9th, and then, if you have a problem, as I say, I will be happy to hear from you then.

MR. GERRY: I have been informed by Mr. Miller that Mr. Holladay should be back on the 16th of June, so I think that will solve the problem.

MR. QUINTON: That doesn't help my problem at all. I am going to be gone for two weeks starting the 16th of June, so will not be back until the June 30, in any event.

THE COURT: Well, let's plan on the 9th, gentlemen, then, for the completion of the testimony, if that's a convenient time for both counsel; and then, as I say, I would not foreclose an opportunity, if you do have a real, serious problem, Mr. Quinton.

[58] All right?

MR. QUINTON: Yes, your Honor. Thank you.

THE COURT: All right.

Is there anything further, then, gentlemen, and I assume counsel will be prepared to argue the case, then, too?

MR. GERRY: Yes, your Honor.

THE COURT: If there are any additional point of law, or any more specific focus that either counsel wants to present by way of additional memorandum, I would welcome them. I do think the issue really resolves itself, in my judgment, at least, and I will be happy to hear argument on all phases of the case that counsel feels is appropriate, but I would like very much the attention directed to the reliance issue.

MR. GERRY: Thank you, your Honor.

THE COURT: Thank you very much, gentlemen.

All right. We will be at recess at this time. We are at recess now.

THE CLERK: Will that be at nine o'clock, your Honor.

THE COURT: That will be at 9:30.

THE CLERK: Yes, your Honor.

THE COURT: Thank you.

[3] SAN DIEGO, CALIFORNIA, FRIDAY,  
SEPTEMBER 19, 1980, 11:00 A.M.

THE COURT: Good morning, ladies and gentlemen. My apologies for the delay.

All right, Mr. Clerk.

THE CLERK: Number two on the calendar, Cases Number 70-0138-E, 71-0036-E, 71-0037-E, 71-0038-E, 71-0039-E, Maxine Cearley, et al., versus United States of America, for further hearing on remand from the U.S. Court of Appeals.

MR. GERRY: Richard F. Gerry appearing for all of the plaintiffs, except Cearley, along with Marcia Hughes of my office.

MR. MILLER: James Miller appearing with the plaintiffs Cearley, your Honor.

MR. QUINTON: Michael Quinton for the United States Attorney, your Honor.

THE COURT: All right, gentlemen, I have in mind the evidence presented on June tenth of this year. Is there anything addition at this time, Mr. Gerry, on behalf of your clients?

MR. GERRY: Yes, your Honor. We have a witness this morning, David Holladay, that we would like to present; and we did, your Honor, file with the Court, on September 12, 1980, a request for judicial notice of the FAA Historical Fact Book, the Code of Federal Regulations, and some other [4] items; and I would assume that, since we have received no objections to those items and since they are matters that clearly fall within the Rule 201, and the United States Code 44, Section 1507, that the Court will take judicial notice of those matters.

THE COURT: All right.

Any objection to the request for judicial notice, Mr. Quinton?

MR. QUINTON: Whatever date this may have been filed, your Honor, I received it on September 15; and I do object.

I don't think the FAA Historical Fact Book is a proper item for judicial notice. Whether or not it's material is another matter entirely; but I just don't think it's something that can be judicially noticed under any recognized authority. I don't think it—I have seen no authority other than Rule 201, and I don't think that's enough. As far as the Code of Federal Regulations, the date, which is on the regulations, on page one, says January 1, 1969. I think it's pretty clear, very clear that whatever regulations may be cited to the Court must be those regulations which were in effect at the time the alleged negligent act in this case took place, which was 1965; so, I think that those are clearly improper and should not be noticed; and the same objection would apply to the handbook, 8110.4. The date is December 28, 1967. Certification of this aircraft took place again in [5] 1965.

So I do object to those as far as the California Civil Code and United States Code. Those are proper items for judicial notice; but, then, I don't think its necessary to file the document and ask the Court to take judicial notice of those.

THE COURT: Well, Mr. Gerry, it's a matter of first impression with me, unless you desire to be heard.

May I have your filing of requested judicial notice? May I see that?

(Pause.)

THE COURT: I would think, Mr. Gerry, absent some authority to the contrary, I think the Code of Federal Regulations had they existed at the time of the accident, would be appropriate; and also the United States Code and those portions of the California Civil Code that you would offer. I would have some difficulty, particularly with objections, to receive, by way of judicial notice, pursuant to Rule 201, the FAA Historical Fact Book and also the handbook that you have talked about, sir.

MR. GERRY: Your Honor, I think that the law is now clear under the new rules of evidence, the Federal Rules of Evidence, that the Court has the power to take judicial notice; and, I think, may be required to take judicial notice of any document which is an official publication of the United States [6] Government or a state government when it is recognized, and must be recognized that that document is prepared by that government in accordance with its official function, and—

THE COURT: If that were true, police reports would come in by way of judicial notice.

MR. GERRY: No. They are not publications. Police reports are not published documents; and—

THE COURT: Well, gentlemen, I don't want to—if there is some testimony to be given today, I would certainly reserve ruling on that and let you submit any authority you have to support those now contested items relative to judicial notice; and I would ask you to do the same, Mr. Quinton; and I will be happy to rule on it; but I would assume it's a question of it's either in or it isn't, but I would be happy to rule on it on the basis of some authority rather than our colloquy here today.

MR. GERRY: Your Honor, not to belabor the point, but Mr. Holladay intends to base, in part, his opinion on some of these documents.

THE COURT: All right. He may be, subject to a motion to strike.

You can go forward with your testimony.

MR. GERRY: At this time, your Honor, if the Court please, we would like to call Mr. Holladay, David Holladay.

THE COURT: All right, sir.

[7] THE CLERK: Raise your right hand, sir.

You do solemnly swear the evidence you shall give in the case now before this Court shall be the truth, the whole truth, and nothing but the truth?

MR. HOLLADAY: I do.

DAVID HADDON HOLLADAY,  
called as a witness by the plaintiffs, having been first duly sworn, testified as follows:

THE CLERK: Please take the stand.

State your full name and spell your last name for the record, sir.

THE WITNESS: David Haddon Holladay, H-a-d-d-o-n H-o-l-l-a-d-a-y.

**DIRECT EXAMINATION**

BY MR. GERRY:

Q Mr. Holladay, you have previously testified in this case, a few years back, when it was first here.

MR. GERRY: Taking that into consideration, your Honor, I—we can, if you desire, go through Mr. Holladay's qualifications again—

THE COURT: No. I am satisfied. I have a recollection of those events, sir, and you may supplement the record pursuant to the mandate; but I have in mind the testimony [8] previously given.

MR. GERRY: Thank you very much, your Honor.

BY MR. GERRY:

Q Since the time of your testimony here before, have you continued in the same line of work, sir?

A Yes, sir.

Q And can you briefly outline what you have been doing in the interim, in that line of work?

A During the interim period, I have been, as you stated, continuing in the same line of work, which is investigating the crash of aircraft, as follow-up in investigative processes carried out by the United States Government. I have been participating as a consultant to numerous entities, organizations, and activities, including law firms; and have been deeply and extensively involved in aviation litigation arising out of those crashes, both in state and in federal courts.

In addition to that, we have enlarged our activities in the area of aviation accident prevention, education, and training, a part of which is a continuation of the courses offered by the Royal Institute of Technology in Stockholm, Sweden, which are presented twice each year.

These courses have now reached the extent that they are being enlarged to include other areas, such as a specialized course in helicopters.

[9] Q Did you, Mr. Holladay, pursuant to our request, on behalf of the plaintiffs, do an historical study of the role of the Government in the aviation field and specifically with regard to the Government's role in the certification of aircraft?

A Yes, sir.

Q And, as part of that, did you review a great many publications, Governmental, as well as others?

A Yes, sir.

Q Amongst those, did you review the FAA Historical Fact Book?

A Yes, sir.

Q Is that, in fact, a Governmental publication?

A Yes, sir, it is.

Q Officially put out by the Department of Transportation, the Federal Aviation Administration?

A Yes, sir.

Q And obtainable through the Government Printing Office?

A That is correct.

Q When, Mr. Holladay, did the Government first become involved in the certification for airmen or aircraft in the United States?

A In 1926, specifically, May twentieth.

Q And, at that time, as I understand it, President [10] Coolidge signed the first Air Commerce Act into law. Is that right?

A That is correct.

Q What was the purpose of that law, sir, as stated?

A That Act instructed the Secretary of Commerce to foster air commerce, designate and establish, operate and maintain aids to air navigation, except airports, arrange for research and development to improve such aids; license pilots; issue airworthiness certificates for aircraft and major aircraft components, and investigate accidents.

Q Prior to the time in 1926, when the Government entered the field, were aircraft being manufactured in the United States?

A Yes, sir.

Q Were they being modified in the United States?

A Yes, sir.

Q Were they being altered in the United States?

A Yes, sir.

Q Was that being done by the Government or by private parties?

A It was being done by private parties.

Q Was any Governmental approval required for the manufacture, alteration, repair, or modification of aircraft prior to the Air Commerce Act of 1926?

A No, sir.

[11] Q Following the passage of the Air Commerce Act of 1926, did the Government then actually begin to license pilots and mechanics?

A Yes, it did.

Q About when?

A On December thirty-first, when the Air Commerce Act of 1926 went into effect, the regulations, which were a part of that Act, also became effective; and, as part of that, required that all pilots engaged in interstate commerce were required to secure transport or industrial pilot licenses, or both; that all mechanics who had been engaged in commercial aeronautics were required to secure either engine or aircraft mechanic licenses, or both.

MR. QUINTON: Your Honor, I am going to object to the witness reading from something, unless we can know what he is reading from, and whether it's a quote.

MR. GERRY: You have a copy of it, Mr. Quinton.

THE COURT: Address it to me, Mr. Gerry.

You have foundation, and I assume this would obviate your original notice requirement if you can lay a foundation relative to his testimony here.

You may continue his inquiry, sir.

MR. QUINTON: May my objection be noted to reading from some record without citing it to us, your Honor?

THE COURT: I think he has. I think he was asked [12] specifically what he was reading from at the very onset of his testimony.

Isn't that correct, Mr. Gerry?

MR. GERRY: My understanding, your Honor, is that he is refreshing his recollection from excerpts from the FAA Historical Fact Book. Those excerpts are those that are in-

cluded in our request for judicial notice; and my understanding is that Mr. Quinton already has a copy of those.

THE COURT: All right.

Thank you, sir. You may continue your examination, and the objection may be noted and overruled.

You may inquire.

MR. GERRY: Thank you, your Honor.

BY MR. GERRY:

Q Had you completed your answer, Mr. Holladay?

A I don't recall if I had, or what the question was.

Q All right. Pursuant, then, to that Act, the Air Commerce Act of 1926, the Government did commence the certification of airmen and mechanics, did it?

A Yes, sir.

Q And then, at some later time, did the Government begin the certification of new aircraft?

A Yes.

Q When was that, sir?

A In 1927, specifically March twenty-ninth, the Federal Government [13] issued its first aircraft Type Certificate Number One.

Q Prior to March 29, 1927, had there been a number of different kinds of aircraft which had been manufactured and were being flown both privately and in commerce in the United States?

A Yes, sir.

Q And were those licensed and certificated by private parties, prior to that time?

A Yes, in the sense that there was no licensing or certification process; but they were performed, what would amount to that.

Q So that prior to that time, then, even for new aircraft, all inspections, modifications—all inspections were private?

A That is correct.

Q Then, at a subsequent time, in about 1930, did the Government pass regulations for aircraft components and accessories?

A Yes, sir, on December thirty-first.

Q And, at a later time, also, did the Government then begin to pass regulations involving the alteration and repair of licensed aircraft?

A Yes, sir. That took place on January first, 1931.

Q Prior to the time of the passage of those regulations [14] by the Government, was all of the inspection, manufacture, repair, alteration, solely under the aegis of private parties?

A Yes, sir. Any person or organization who chose to do so, could do whatever they pleased in respect to aircraft, or their operation.

Q And is that similar to these tower operations in the United States?

A Yes. At this time, to the extent to which airports existed, and/or to the degree which they were equipped with towers, the towers were operated by private parties or organisations.

Q When did that change, as to the tower operations?

A That changed in November—became effective in November of 1941.

The procedures for the Federal Government's operation of control towers was first established on October seventeenth, 1941; but they did not take over the operation of towers until November first, 1941; and by November fifteenth of 1944, there were eight control towers that were then under the Civil Aeronautics Administration's operational responsibility.

Q Now, is there, then, a similarity of the Government taking over the duties of the control towers and taking over the duties of the inspection and licensing of aircraft?

MR. QUINTON: May I object to this question? It's [15] leading and calls for a conclusion from this witness, your Honor.

THE COURT: No. I will overrule the objection.

You can answer that, sir.

THE WITNESS: Yes, there is. It was a process by which the Government gradually and progressively began to preempt private persons in the same areas of activity.

BY MR. GERRY:

Q After the Government had taken over the inspection of new aircraft and of the alteration and modification of air-

craft, did this relieve the repair stations and mechanics of their duty to inspect aircraft which they had altered, modified or repaired?

A No, sir.

Q They continued to have such a duty, as defined by the FARs?

A Yes, sir, they did.

Q Did the Government in fact license persons to inspect aircraft?

A Yes, they did. They certificated not only the mechanics who had performed the actual, physical work of maintenance, inspection, repair or modification, but they also certificated and delegated authority to other persons who would perform responsibilities for inspection, and designated those persons to act for the administrator.

[16] And those persons then would inspect modifications and repairs, would they?

A That is correct.

Q The—assume, sir, that an item had been licensed by the Government—an aircraft had been licensed by the Government and had been placed on the market by the manufacturer as a new aircraft; in purchasing that aircraft, as an aircraft purchaser, what would the purchaser look for to determine whether or not the aircraft was airworthy?

MR. QUINTON: I am going to object to the question, your Honor, as calling for speculation.

THE COURT: Sustain the objection, as calling for a conclusion.

MR. QUINTON: I am going to object to the question again, based on materiality because the certification process for new aircraft is not at issue here.

THE COURT: I will overrule your objection on materiality.

You may rephrase your question, sir.

BY MR. GERRY:

Q In purchasing an aircraft, Mr. Holladay, a new aircraft that has not previously been modified or altered, to what would the purchaser look?

MR. QUINTON: Again, objection, because it calls for speculation from this witness. There is no way he can know

what any individual might rely on at the time he buys an [17] airplane.

THE COURT: I think he is sufficiently qualified. You may inquire on cross-examination. He can list those factors which he feels may be appropriate.

You may inquire.

You can answer the question, sir, if you understand it.

THE WITNESS: Yes, sir, I understand it.

The person would look to one single primary document, which would have to be on board that aircraft in order for him to be able to operate it in the category for which it was certificated; and that would be the certificate of airworthiness.

BY MR. GERRY:

Q Is that required to be aboard every aircraft at any time that it's operated, from the time that it's new until the time that it goes out of service?

A Yes, sir.

Q And does the person purchasing that aircraft, from the manufacturer now, have a right to rely on that certificate as proof of the airworthiness of that aircraft?

MR. QUINTON: Objection there, your Honor. Calls for a legal conclusion.

THE COURT: I think it probably does, Mr. Gerry. You have other testimony that already speaks to this area. Am I [18] correct?

MR. GERRY: Well, I did, your Honor, except it calls for a factual conclusion, as a practical matter.

Q (By Mr. Gerry:) The—do the pilots, or the persons purchasing the aircraft, rely on that document as proof of the airworthiness of the aircraft?

MR. QUINTON: That is a different question. What he asked was whether he had a right to rely on it.

THE COURT: You are not objecting to the second question?

MR. QUINTON: The second question calls for speculation as to whether any pilot might or might not rely on the documents.

THE COURT: I will overrule that objection.

You can answer that, sir, if you understand it.

THE WITNESS: Yes. The pilot, among others, does in fact rely upon the certificate of airworthiness as indicating that the aircraft is airworthy.

In fact, the Code of Federal Regulations, 14 CFR, Part 91, speaks to that very same question.

BY MR. GERRY:

Q And, now, after that aircraft has come out, been purchased the first time around, are there provisions for altering and modifying that aircraft?

A Yes, sir.

Q Were there such provisions prior to the 1931 date [19] of January 1, 1931, when the Government provided for regulations for alteration and modification?

A No, sir.

Q By that, at least, since 1949, have there been such regulations?

A Yes, sir.

Q And, in order to make a major modification or alteration of an aircraft, what is necessary, sir?

(Pause.)

What's the document called?

A First, it is necessary for the person to be aware of and familiar with the Code of Federal Regulations, specifically 14 CFR, Part 21, because that spells out the basic minimum standard of regulations by which that individual must abide, and with which he must comply.

He then must complete the required procedure under the manner and the form prescribed by the Administrator of the Federal Aviation Administration. And that is regulated by the Federal Aviation Administration; and those procedures are carried out in accordance with a manual which is published by the Federal Aviation Administration and provided to its employees in the field, for their use in assuring that the persons seeking such modifications are, in fact, complying with all of the regulations as well as with all of those administrative and inspection procedures which the FAA requires.

[20] Q And if they do then issue such a document, is that the document called a Supplemental Type Certificate?

A Yes, sir.

Q Does the Supplemental Type Certificate,, which is issued, accompany the aircraft?

A Not the actual certificate itself, no.

Q Is there another piece of paperwork, then, that does accompany the aircraft?

A Yes, sir.

Q What is that called?

A It is called an FAA Form 337.

Q Is that as an alteration and repair form?

A Yes, sir.

Q Does that alteration and repair form have to refer back to the Supplemental Type Certificate which authorized that alteration and repair?

A Yes, sir, it does.

Q Can any private party issue such a Supplemental Type Certificate without the approval of the Government?

A No, sir.

Q Has the Government totally preempted, then, the field of the issuance of such a document?

A Yes, it has.

Q And the—in order for such an alteration to an aircraft, does the Government then have to, under their own [21] regulations, review and accept the design of the proposed change or alteration?

A Yes, sir. That must be done before the proposed change or alteration can begin.

Q Okay. Now, when you say that, that's—normally, when you have an alteration or modification, you might be altering or modifying or agreeing to the alteration or modification of a great number of aircraft. Is that right?

A That is correct.

Q Is there a second way to do it, if you are modifying only one aircraft?

A Yes, sir.

Q Now, in the first way to do it, is it necessary to present detailed design specifications, data, and drawings?

A Yes, sir.

Q And, before any work is done on the aircraft, then, as I understand it, those are presented to the FAA. The FAA

reviews and approves; and then, only then, does the work of change take place. Is that right?

A That is correct.

Q Now, directing our attention, instead, to the second method, for the one aircraft modification, is that specifically provided for in the regulations; and also in the manual that is provided for the FAA?

A Yes, sir, it is.

[22] Q And is that manual that is provided by the Government known as the "Handbook 8110.4, Type Certification, Department of Transportation, Federal Aviation Administration"?

A Yes, sir, it is.

Q And—

(Pause.)

MR. QUINTON: Was there a date on that publication?

THE COURT: If there is, if you can assist Counsel, I would appreciate it.

MR. GERRY: Yes, December 28, 1967.

THE COURT: All right.

You may continue, sir.

BY MR. GERRY:

Q Does that handbook set forth a method by which you can certify, without presenting the entire data?

MR. QUINTON: Your Honor, I am going to object to this testimony as based on this handbook because the date of that was subsequent to the date of the inspection.

MR. GERRY: Withdraw the question.

Q. (By Mr. Gerry:) Does that handbook set out the system by which a single engine—I mean a single airplane modification may be done—

MR. QUINTON: Well—

MR. GERRY:—and—

THE COURT: Let him finish the question, Mr. Quinton, or [23] it's going to be a hard day for all of us.

MR. QUINTON: I thought you had finished, Mr. Gerry.

THE COURT: Go ahead, Mr. Gerry.

BY MR. GERRY:

Q And is that handbook merely a statement of the practice, custom and procedure, which pertained prior to the date of its publication?

MR. QUINTON: I am going to object to this as being—any line of questions from this handbook, your Honor—as being immaterial to our cross-examination, because it wasn't effective on the date of certification that we are concerned here.

THE COURT: Your objection is noted and overruled. The question doesn't pertain to that.

If you understand the question, sir, you can answer it.

THE WITNESS: Yes, sir. May I hear the question, sir?

THE COURT: What he is asking you is: the thing you just alluded to, the handbook of 1967, if that incorporates practices and customs which existed prior to that time, sir.

THE WITNESS: Yes, sir.

THE COURT: You may inquire.

BY MR. GERRY:

Q Is it a new document or revision of or correlation of old documents that incorporated the same information prior to 1967?

[24] A It is.

MR. QUINTON: Objection, your Honor. If we have the other document, we can present them.

THE COURT: Well, Mr. Quinton, you can cross-examine. If you ascertain that he doesn't know what he is talking about or he hasn't considered other documents, or you have regulations which were applicable which he says were not, I would be delighted to hear it. That's the purpose of cross.

You may inquire.

The answer may stand.

BY MR. GERRY:

Q What procedure was followed in the modification of single-engine aircraft in the custom and practice in 1965, as outlined in the handbook?

A I think you misspoke yourself.

Q No.

A Single-engine airplanes.

Q I mean single-engine airplane modification.

A The procedure which applied then was that, if it was going to be for only one aircraft, it is not necessary to submit all the voluminous data, including detailed specifications; but they could, instead, submit marked photographs,

sketches, or a word description, but if they did that, they would have to assure that it would be put on one aircraft only; and, under those circumstances, there was a statement which [25] would be required on the FAA form for that particular kind of STC, which would apply limitations and conditions to that STC.

THE COURT: When you say "STC," you are talking Supplemental Type Certificate?

THE WITNESS: Yes, sir.

THE COURT: All right.

BY MR. GERRY:

Q Did the procedure require, in the single aircraft modification, done pursuant to this other procedure, did it require an actual inspection by an FAA representative?

A Yes, sir, it did.

Q And was that called a compliance inspection?

A Yes, sir. It was called a compliance inspection; and it involved the physical inspection of the prototype modification to determine compliance with the Federal Aviation Regulations, or Civil Aviation Regulations requirements; and it went further to state, and I quote, "These inspections will be conducted by an FAA representative," unquote.

MR. QUINTON: Excuse me, your Honor. When the witness is reading something from the document, could we know what page he is reading from?

MR. GERRY: Page 30, item 43B(1).

THE COURT: In the future, sir, if you do read, if you could give us the page and line reference so counsel may follow.

[26] You may inquire.

THE WITNESS: Yes, sir.

MR. GERRY: Thank you, your Honor.

BY MR. GERRY:

Q Then, following the inspection, if the Government inspector finds that the installation, as installed—is this an "as installed inspection"?

A Yes, sir, it is.

Q It has to be completed, then?

A Yes, sir. The words that are used are from page 30, paragraph 43B(1), "Physical inspection."

Q All right. Then, assuming that the FAA finds that the modification meets FAA standards, is the applicant entitled to the issuance of a Supplemental Type Certificate?

A Yes, sir.

Q And if the FAA finds that the installation does not meet Government standards, is the applicant entitled to the issuance of a Supplemental Type Certificate?

A No, sir.

Q May a repair station, mechanic, or any other person, legally install a gasoline-fired heater in an aircraft, not certified for such aircraft, initially, without the obtaining of a Supplemental Type Certificate?

(Pause.)

Q Let me rephrase. Must anyone wishing to install a [27] gasoline-fired heater in an aircraft not previously certified for such heater, must they obtain a Supplemental Type Certificate in order to do so?

A Yes, sir.

Q Is the aircraft, by definition, unairworthy if such a heater were installed without the Supplemental Type Certificate?

A Yes, sir. In the sense of the existing certificate of airworthiness and the category for which that particular aircraft is certificated.

Q All right. Is each of the persons who flies that aircraft charged by the Federal Air Regulations with the duty of determining that there have been no illegal installations put aboard the aircraft?

A Yes, sir.

Q Are each of the persons who inspect that aircraft, pursuant to hundred-hour inspections or annual inspections, charged with the duty, by the Federal Air Regulations, of determining that there have been no illegal installations put aboard that aircraft?

A Yes, sir.

Q How do they determine that?

A By the process of maintenance, which, by definition, and the regulations, includes inspection; and by compliance with the regulations which outline the responsibilities of [28] those persons performing maintenance; and specifically by examination of what is known as the paperwork, which must be completed and either carried on board or available

for examination along with the aircraft when it is undergoing the maintenance inspection process.

Q Assuming, sir, that a mechanic was inspecting an aircraft which did not have, on its original certificate, the gasoline-fired heater, did not have a Supplemental Type Certificate, or a Form 337 for such a heater, and he discovered that, could that mechanic sign off that aircraft as airworthy, following his inspection?

A No, sir, he could not. There are regulations which spell out in detail what he must do, which is to basically follow the procedure prescribed, which is spelled out by paragraph, and even includes a recommended series of words that can be inserted in the logbook; to wit, that he has in fact inspected the aircraft; but that it is not airworthy; or, if it is airworthy, that he has inspected it and it is airworthy; and, in the event of such a situation as you concluded in your question existing, he would, of course, have to indicate that it is not airworthy; and he is required to place in the hands of the owner or operator of the aircraft, the statement to the effect of its unairworthy condition and the reasons why he will not sign it off.

Q So that, then, the owner or the operator of the [29] aircraft, when he is handed a document, either in the logbook or separately, which is signed by an authorized airworthy—aviation inspector, do each of them have a number?

A Yes, sir, certificate numbers.

Q And when he signs that logbook, does he have to also put down his log number?

A Yes, sir, he does; and if it is an inspection which requires the authorized inspector, who is a designee of the Federal Aviation Administration, he must preface—correction—prefix the number by his "AI," which means he is an authorized inspector.

Q When he hands that document, then, to the owner or operator of the aircraft, as a matter of custom and practice in the industry, does the owner or operator of the aircraft then redo the inspection to determine that that is the truth, or does he rely on that document?

MR. QUINTON: I am going to object, again, your Honor, as calling for speculation from this witness as to what anyone may rely on any given instance.

He can testify as a matter of custom and practice, but I don't think he can testify as to what one person might rely on.

THE COURT: It's a good objection, Mr. Gerry.

You might rephrase your question.

Q (By Mr. Gerry:) Do owners and operators of [30] aircraft, as a custom and practice in the industry, rely on those documents, signed by the AI, stating that the aircraft is airworthy?

MR. QUINTON: I am going to object again, your Honor, as calling for a conclusion.

THE COURT: I will overrule the objection.

THE WITNESS: My answer is, "Yes."

BY MR. GERRY:

Q If an owner or operator of an aircraft were instead handed a document in which the AI had stated that the aircraft was unairworthy, could the owner or operator of that aircraft fly that aircraft legally?

A No, sir.

Q Would he jeopardize all of his licenses issued by the Government if he did fly that aircraft without such an airworthiness approval by the AI?

A Yes, sir, unless he complied with other provisions in the regulations, such as obtaining a permit to move it to some other station. If he did not obtain that and he flew the aircraft, he would be in violation of numerous regulations, and his certificate would be in jeopardy. He would also be subject to fine.

Q I believe that you—are there airworthiness directives that are put out by the Federal Aviation Agency?

A Yes, sir.

[31] Q Do those require repairs or changes or modifications to aircraft?

A Yes, sir, they do.

Airworthiness directives are issued under 14 CFR 39, and they are safety airworthiness directives that require repairs, modifications, inspections, maintenance, either on a one-time basis, or on a continual basis.

Q When an aircraft is turned over to an aircraft mechanic or repair station, does the mechanic, or the repair station, have the duty, under the FARs, to check that air-

craft against the airworthy directives issued by the FAA for that aircraft?

A Yes, sir, he does.

Q May he return that aircraft to service without compliance with the Federal airworthiness directives?

A No, sir, he cannot; and if he did, he would find himself in the same jeopardy as the pilot, in answer to your previous question.

Q Does he, when he complies with the airworthiness directive, or any of them, must he make a note of that in the logbook of the aircraft or the engine?

A The engine logbook, you mean?

Q Yes, sir.

A Yes, sir, he must. He must use the back pages of either one of those logbooks, depending upon which is [32] applicable to airworthiness directives, and indicate the number of airworthiness directive, the date of compliance and the extent of compliance; that is, if it is a one-time, what he did; if it is a continual compliance, the number of hours at which he complied; and, at most case, the custom and practices to indicate when it is again due.

Q Now, I would like you to assume, sir, that an aircraft has been in service for many years and there have been several airworthiness directives issued by the Federal Government relative to that aircraft and/or its engines; and this aircraft is now turned over to a repair station for a—an inspection.

Does the repair station have to look at the airworthiness directives and then inspect the aircraft to determine that each and every one of those airworthiness directives have been complied with, or is there another system that is used?

MR. QUINTON: Well, excuse me, your Honor. Maybe I am missing something here, but I see no materiality to airworthiness directives in this evidence that we are talking about.

MR. GERRY: I will connect it up, your Honor.

THE COURT: If you understand it, you can answer it.

THE WITNESS: Yes, sir; and there is a system by which this must be done. The person conducting the maintenance [33] and inspection examines the paperwork, including the law books to which he previously referred; and

determines the extent of compliance, compared with the list of airworthiness directives which he knows are applicable to that aircraft.

If compliance has already been indicated in the logbook, and if no further compliance is required, then there is no responsibility for the person doing the maintenance or inspection to look at each one of those airworthiness directives in terms of its compliance.

BY MR. GERRY:

Q He can rely on the paperwork, then?

A That is correct. If, however, it is an airworthiness directive that requires a continuing inspection, such as every five hundred hours, then he must determine whether or not, at that particular time interval, that five hundred hour continuous inspection is a requirement; and if it is, he must comply.

Q Besides the logbooks that are carried on the aircraft, or available for the inspections, is it required that any 337s be available at the same time?

A Yes, sir, it is.

Q And are those treated in the same fashion as the airworthiness directives?

A Yes, they are.

Q So that, if there is a 337 on the aircraft for the [34] installation of a nose heater, gas-fired nose heater in the aircraft, is the repair station or mechanic, or inspector, required to recheck that aircraft to determine that, in fact, the installation was done and was done in an airworthiness manner?

A No, sir. He is only required to maintain it in respect to its inspection and examination; but he is not required, nor is he authorized, to make any changes in that installation beyond that which is installed.

Q Would it be economically feasible, sir, to do it any other way than to rely on the paperwork, rather than reinspecting every hundred hours each and every airworthiness directive, 337 or other?

MR. QUINTON: Other?

I am going to object to the question, your Honor, as being totally outside the area—

MR. GERRY: I will withdraw the question.

THE COURT: Go ahead, sir.  
BY MR. GERRY:

Q What would be the economic impact upon owners and operators of aircraft to require a system whereby each time the aircraft was in for hundred-hour inspection, each airworthiness directive and modification and alteration had to be completely reviewed and inspected on the aircraft itself instead of on the paperwork?

[35] A It would be an unbearable economic burden and there would be very, very little utilization of the aircraft, because it would spend most of its life in a maintenance facility undergoing inspection and repetitive reinspections of already installed items of equipment.

Q Do you fly aircraft as a pilot?

A Yes, sir.

Q Do you review the logbook when you get in an unfamiliar aircraft?

A When the logbooks are available, yes.

Q And when—do you determine, before you fly, that there is an airworthiness certificate aboard the aircraft?

A Yes, sir.

Q And that it is up to date?

A Yes, sir.

Q They expire periodically if inspection procedures are not complied with, do they not?

A Yes, they do.

Q And, if the airworthiness certificate—strike that.

If the inspection procedures have not been complied with, and you fly that aircraft, are your licenses in jeopardy?

A Yes, they are.

Q And, if that is signed off that they have been complied with, do you rely on that as being evidence of the airworthiness of the aircraft?

[36] A Yes, sir.

Q Does that apply also to the logbook entries as to the ADs, compliance with the ADs, at the 337 alteration forms?

Do you also fly on commercial aircraft?

A Yes, sir.

Q When you fly on commercial aircraft, sir, you don't ever see the paperwork on that aircraft, do you?

A No, sir.

Q It is required that the airworthiness certificate be placed in a place visible to passengers?

A Yes, sir.

Q Did you ever bother to look at that?

A No, sir.

Q What do you do as an air traveler?

A I rely on the fact that the aircraft that are used in commerce in the United States are certificated by the Federal Aviation Administration, through their regulatory procedures, as a matter of what I know to be the law, specifically the Federal Aviation Act of 1958. I, with certain exclusions, which are within my peculiar area of knowledge, choose certain aircraft that I will fly on against the others which I will not fly on; but I think, in that respect, I am unique as a passenger.

Q Those that you will fly on, you believe that [37] everybody has done their job?

A Yes, sir.

Q And you rely on that?

A Yes, sir, I do.

MR. GERRY: No further questions.

THE COURT: How much time do you think will be involved in your examination, Mr. Quinton, just a best estimate, sir?

MR. QUINTON: I don't think it's going to be nearly as long as the direct, your Honor, but probably twenty, twenty-five, thirty minutes.

THE COURT: This might be an appropriate time to take our lunch recess.

Give me some insight, if you would, gentlemen.

Thank you, Mr. Holladay. You may step down at this time, sir.

What else do you envision relative to time, Mr. Gerry, relative to your presentation today?

MR. GERRY: I would only have redirect, your Honor, of Mr. Holladay, and I wouldn't expect that to go very long, because I don't expect Mr. Quinton to go very long.

THE COURT: And then, as far as the time estimate, relative to your comments, I assume we can finalize the resolution of this matter today.

MR. GERRY: I would hope so, your Honor. I would think ten, fifteen minutes.

[38] THE COURT: Mr. Quinton, what is your view?

MR. QUINTON: I think that is fair, your Honor, another ten or fifteen minutes to argue. I don't know if the Court would like to have briefs or not.

THE COURT: No. I have reviewed all the material, and I would welcome Counsel's comments after the evidence has been concluded.

If, gentlemen, one-thirty is a convenient time for all counsel, we'll be in recess, then, until one-thirty.

Thank you very much.

MR. GERRY: Thank you, your Honor.

(Luncheon recess.)

[39] SAN DIEGO, CALIFORNIA, FRIDAY, SEPTEMBER  
19, 1980, 1:30 P.M.

—0—

THE COURT: Good afternoon, ladies and gentlemen. The Court would note the presence of all counsel. The witness has resumed the stand.

You may inquire, Mr. Quinton.

MR. QUINTON: Thank you, your Honor.

First of all, your Honor, I would move to strike Mr. Holladay's testimony on direct for the reason that I don't believe his testimony is material to the—any of the inquiries in any of the mandates imposed upon the Court by the Court of Appeals and the *United Scottish Insurance* opinion.

THE COURT: All right, sir.

That motion will be noted and would be denied.

You may proceed, sir.

MR. QUINTON: Thank you, your Honor.

#### CROSS-EXAMINATION

BY MR. QUINTON:

Q Mr. Holladay, you testified on direct, I believe, that the installer of the heater, or the installer of any piece of equipment on an airplane, has a duty or obligation to inspect that installation or that piece of equipment after it is

installed, and to insure that that installation is airworthy. Isn't that correct?

[40] A Yes, sir.

Q And it is your testimony, I believe, that the inspection by the FAA does not relieve the installer of that obligation to inspect the heater and to insure that it's airworthy?

A That is correct.

Q And you further testified that this obligation to—and—the obligation to inspect any installation of any piece of equipment on an airplane existed even prior to the existence of the FAA, or the CAA, as predecessor agent?

A The obligation, as a moral responsibility, existed; but there was no obligation by regulation prior to that time.

Q Is it your understanding, sir, of the certification process, in general, that the certification process is a type of regulation of the aviation industry imposed on it by the FAA?

A I am not sure how you are using the word, but the criteria for certification, at least as to minimum standards, are contained in the regulations; so, to the extent to which you use that word in that manner, then, certification is regulated. I don't know if I understood your question, or if that constitutes an answer.

Q Well, let me rephrase the question, sir.

Is certification, as performed by the FAA, a regulatory activity when it's performed subject—when it subjects [41] the industry to certification of an aircraft or of equipment?

A Well, I can only answer from the point of view of how I look at it. It seeks a legal opinion; I am not qualified to answer that. I consider it to be a regulatory activity. I consider the FAA to be a regulatory agency.

MR. QUINTON: I have no further questions, Mr. Holladay.

THE COURT: All right.

Anything further of this witness, sir?

MR. GERRY: I have nothing further, your Honor.

THE COURT: May he then be excused, gentlemen?

MR. GERRY: Yes, your Honor.

MR. MILLER: Yes, your Honor.

THE COURET: Thank you, sir. You may step down and you may be excused.

All right. Anything further on behalf of the plaintiffs at this time?

MR. GERRY: Not for the plaintiffs, your Honor.

THE COURT: Anything on behalf of the defendant?

MR. QUINTON: No, your Honor. I have—since the plaintiff has rested, I would move to dismiss this action under Rule 41B. I believe that procedurally would be the appropriate motion at this time.

THE COURT: I don't know that that's the appropriate motion. It's remanded back for evidence. It may have that as its ultimate resolution, but your motion will be noted, and I [42] will—it will stand submitted, sir.

I would be happy to hear argument of counsel relative to the remand and the issues raised by the remand. I will take under submission your Rule 41B motion.

MR. QUINTON: The defendant has no evidence to offer, your Honor, procedurally, and—

THE COURT: All right.

The evidence having been concluded, gentlemen, having in mind the nature of the remand and the limited issues pertaining thereto, I would welcome your comments, Mr. Gerry; and it would be involving specifically the issues on the remand.

READING OF DEPOSITION OF  
CHARLES H. MCMILLAN  
JANUARY 30, 1975

[415] MR. MILLER: Your Honor, our next witness, again by deposition, would be Charles H. McMillan, and I would comment that Mr. McMillan died shortly after the giving of this deposition, and Judge Hill in Dallas ordered that it be received in evidence, although it has not been signed.

THE COURT: Any objection to the reading of this deposition, sir?

MR. COOK: No, your Honor. We have no objection, your Honor.

THE COURT: You may proceed.

MR. MILLER: This is the deposition, taken in Dallas. Appearances were Greer, Popko, Miller & Foerster, by James H. Miller for Mrs. Cearley, and Charles Cearley, and Karen Cearley; Herbert Lyons for the United States Government; and other Counsel were there for Air Wisconsin and for Aerodyne.

Deposition was taken on February 5, 1973. Direct examination is on Page 4, Line 8 (Reading:)

"Q Mr. McMillan, would you give your full name to the reporter?

"A Charles H. McMillan.

[416] "Q And what is your current address?

"A 6728 Victoria, Falls Church. It's really Forth Worth, 76118.

"Q Have you ever had your deposition taken before?

"A This is the first time I have ever been on this side of a deposition. I have been in quite a few on the other.

"Q And what do you mean, 'on the other'; you mean you have taken depositions yourself?

"A Not taken them, but participating in them.

"Q Did you have a chance to talk over the deposition with an attorney for the United States?

"A No.

"Q Well, you understand that we are making a copy—the reporter will make a copy of your testimony today, and you will have a chance to examine it and make any changes that you want to, and also, any of the attorneys would have the right to make comments on any changes that might be made?

"A Standard procedure, as I understand it.

"Q And of course you are testifying under oath, with the same obligations to tell the truth as if you were in a court of law; you understand?

"A Very definitely, I do.

[417] "Q What is your current occupation?

"A I'm retired.

"Q And when was your last occupation before retiring?

"A Assistant Chief, Engineering-Manufacturing Branch, FAA, in Fort Worth.

"Q How long were you employed by the FAA?

"A 26 years.

"Q Now, starting with your last employment, what were your job titles during those 26 years?

"A Well, I was a manufacturing inspector, District Office Supervisor, manufacturing inspections specialist, and then I came out as Chief of the Manufacturing Inspections Section in Fort Worth, and from there I went into Assistant Chief of the branch.

"Q Calling your attention to Plaintiffs' 4 in the deposition of Mr. Coppinger, which is a copy of the supplemental type certificate, does your signature appear on this document?

"A Yes, sir, and I don't think anybody could duplicate it."

THE COURT: May I inquire if the questions are now being propounded by what attorney?

MR. MILLER: By myself, your Honor.

[418] THE COURT: Fine; thank you.

MR. MILLER (Reading):

"Q I'll agree with that.

Could we get a photocopy of this and make it Plaintiffs' 1 on this deposition?

Now, this document is dated—I believe on down here it appears 8-4-75, and then revised—" '65; I'm sorry, "—and then revised 10-1-65; is that correct?

"A Yes.

"Q What was your job title with the FAA at this time?

"A Assistant Chief of Engineering-Manufacturing Branch.

"Q And what were your responsibilities as part of this job?

"A Generally, supervision of the five sections, and the engineering service representative offices. I also handled the clerk situation, as far as the branch office was concerned.

"Q Well, now, in connection with the granting of supplemental type certificates, would your duties include work in that area?

"A Well, yes and no. Direct participation in the engineering evaluation, no; coordination of the resulting data that came from this activity, in the [419] absence of the branch chief, I would sign off the supplemental type certificates, if I found that they met all of the criteria that had been established as far as the branch office was concerned.

"Q Would you be the final person to examine the certificate before it was granted?

"A The certificates? Well, sure, you examine them because you sign them.

"Q But in other words, you were the final level of review within the FAA for this type of certificate?

"A When those came into the branch office, they came in for just one thing, and that was for checking to make sure that everything had been done as far as the records were concerned, and for signature. The engineering evaluations, or the technical evaluations that led to the individual sections recommending to the branch office issuance of such a document, came under the chiefs of these five sections, and in accordance with the standard agency procedure, and knowing our people, we had no compunctions about signing

such a certificate, providing our review showed them to be all right.

"Q When you say, 'your review,' what specifically did your—

"A We would have a copy of signatures of all of [420] the section chiefs that were involved in the evaluation of these modifications. it could be one, two, or all five, and it could also be the engineering service representatives, which came under the supervision of the branch office.

"Q Now, do I understand your answer that you would receive an engineering evaluation from either one of the heads—

"A Well, if we had a question, we would ask for the data, but this would be something that was definitely unusual. In most cases, it was received by the sections, portioned out to whichever section was responsible for the type of activity depicted in the data, presented for approval, and on receiving an assurance from them that they had reviewed it and found that it contained the appropriate regulations, that was all we needed.

"Q Well, how would they indicate to you that this had been done? What type of documentation would you receive?

"A Generally, it was a sign-off sheet, or there were other times where we would meet, that is, all of the sections involved as far as the particular project was concerned. We would get their approval.

"Q Would this be verbal?

[421] "A Generally, it was accompanied by minutes, but the meeting, as far as it was concerned, was verbal.

"Q Now, if there were such sign-off sheets, would they be retained in the file of the supplemental type certificate?

"A If there were sign-off sheets, they would be part of the package of the project.

"Q Now, would the sign-off sheets indicate the individual who had made the actual engineering evaluations?

"A The only time that we would get an indication as to who the engineer was, would be when the sign-off was done by the engineering service representative. When there were several sections involved, no, we would get the sign-off from the Section Chief himself because, generally, with-

in his own group, he had a certain amount of coordination that he had to do, generally with one or more of his people—generally more..

"Q Well, in the FAA file on supplemental type certificates such as the one that is plaintiffs' 1 in your deposition, what type of document would exist in that file that would contain the names of the persons who had either made or signed off for the engineering evaluation?

"A As part of the file package, you will have [422] correspondence, so you would know who the engineer was that worked on the particular project. I mean, as far as the type of data itself, it would tell you their particular engineering specialty, and you would have all of the data, so you knew what the modifications are, the work that was involved, or what the approval covered.

"Q And would all this material remain in the file after the issuance of the certificate?

"A Oh, yes; there is one of two places where it's kept. I mean, the file is kept in the regional office, and otherwise, we would send it to your office.

"Q But the file would permanently be maintained of this material?

"A We are required by Federal procedure to maintain it.

"Q I mean, is there any regular procedure by which any of this material would be removed from the file?

"MR. LYONS: Are you referring to the archives, active or inactive?

"Q BY MR. MILLER: Any procedure that he was aware of.

"A The only thing I can tell you is as long as there is one of those machines still certificated and [423] operating, all data that pertains to that particular make or model will be retained. When there appears to be none left, it's up to the archives. I don't know what they do. I'm not that familiar with it.

"Q As long as one of these planes were certificated to fly, there should be a complete record?

"A There should be an adequate record to maintain it in an airworthy condition.

"Q Well, would there also be a complete record of the paper work that went into this FAA approval and granting of a supplemental certificate?

"A Yes.

"Q So that should all be in the file?

"A It should be all in the files.

"Q Do you recall the granting of this particular supplemental type certificate?

"A Well, now, we are talking about eight years, and the answer is no, I don't.

"Q Do you recall having any conversation or discussion with anyone concerning this supplemental type certificate, at any time?

"A No, what I have told you earlier—I mean it's basic operating procedure, as far as the agency was concerned, while I was with them. I have been retired for over five years, so what it is now, I cannot tell [424] you.

"Q Now, concerning this particular type of change involving the installation of a heater, a gasoline-fed heater, what type of engineering evaluation would you have required before you signed off this type of supplemental type certificate?

"A Well, if this is the technical data, I can assure you of one thing—excuse me just a second—

"Q The witness is referring to Plaintiffs' 1 of Mr. Hill's deposition, which is the eight pages of drawings and photographs.

"A Now, I'm sure—when I say, 'sure,' I can't remember, but I know the procedure at that particular time with pictures, and that's about all we have got, that the appropriate engineer and inspector assigned to the project would have given that a good, confirmative inspection as far as compliance. Now, by, 'conformant,' or, 'conformant inspection,' I'm talking about conformity with the Civil Air Regulations applicable to such activity at this particular time.

"Q Now, when you say, 'a conformance inspection,' does that mean inspection of the actual installation?

"A Inspection of the actual installation for compliance with the airworthiness requirements of the FAA.

[425] "Q Would they have also examined the drawings for similar compliance with the airworthiness standards?

"A If you have drawings.

"Q Well, I'm talking about describing this collection of pictures with information concerning type of material used.

"A Well, I see a bunch of photographs here that shows a few things, but to me it does not constitute drawings, or anything nearly approximating that. It does give us a record as to what certain installations involved were, and this, supplemented by the airworthiness inspections or conformance inspections of FAA personnel, which is done at times with photographs, and the conformity inspection, or compliance inspection by appropriate personnel—those assigned the duties of evaluating the heater systems, and they are also responsible for ventilation requirements—if the activity is quite complex, then we use a systems engineer. If the activity is one aircraft, and the modification is quite slight, then generally we will send the service engineer out.

"Q Well, now, in examining these photographs with information on the side, would your people go through and, for example, where it says, 'Hot air plant,'—sets out certain types of materials to be used—would [426] they examine that, and say, 'Yes, that is the correct material?'

"MR. LYONS: I think—"

Well, that question was reasked, your Honor, so delete that material down to Page 14, Line 19 (Reading:)

"Q BY MR. MILLER: Is it correct that the procedure that you have been describing, and the type of examination, is the type that you would have required as a matter of course in doing your job before you affixed your signature to this STC?

"A I think I know what you are asking for. Let's put it this way: If this kind of data had been presented to the FAA engineer and inspector, they would have had to make their compliance with the regulations and inspections, yes.

"Q And would you have demanded to see evidence of this compliance before you signed off the STC?

"A This is something that is delegated to the section chief, the responsibility of making sure that this particular activity is done. I could not have monitored and carried on

the normal activities of the branch because there was some 80 engineering and flight test personnel involved, and I couldn't get around to all of those.

"Q So you would not have monitored the actual [427] performance of this test personally?

"A I thought I had made clear, a little bit earlier during this deposition, that, yes, we had to have it before we would issue such a certificate.

"Q Well, it was clear to me, but I think there was an objection raised. So, in other words, as I understand it, your testimony is that the chain of command was such that you made the final sign-off, and before you would make that sign-off, you required from your section chiefs, written—

"A From the section chief of the participating sections of the project.

"Q All right. The section chiefs that participated in the particular STC, you required from them their assurance, or their indication to you, that this type of procedure which we have been discussing had been performed under their direction?

[428] "A We would assure ourselves, from them, that they had applied all of the regulations and found that the modifications did comply with the existing regulations that were in force at that time.

"Q All right. Now, in order to comply with those regulations at that time, would the inspection of the actual installation that you previously described be one of the requirements?

"A With this kind of data?

"Q Yes.

"A Definitely.

"Q All right. Have you had a chance to examine all of the drawings that are referenced on this STC?

"A No.

"Q Would you take a moment and just go through them? They are the documents that are specified on Plaintiffs' 1 to your deposition, are they not? There is a drawing No. D-205141?

"A Well, I'll call them drawings. Yeah, Sheet 1, okay.

"Q Now, with a submittal of this type, in requesting a supplemental type certificate—and I believe Plaintiffs' 1 does indicate that it is for two aircraft; is that correct?

"A That's what it says.

[429] "Q Well, assuming that these documents which are referred to here as drawings—which you feel, perhaps, should not be dignified by that designation, but which are the referred documents—

"A I think they should be appropriately identified, but that's beside the point.

"Q —assuming a submittal for a supplemental type certificate was made with those drawings, in accordance with the document, Plaintiffs' 1, would you have required from your section chief, or the section chiefs of areas relevant to this installation, an assurance that they had actually made an inspection of the aircraft?

"A Well, to be candidly honest with you, that was such an inborn and such a consistent demand upon the section chiefs that no, I didn't have to insist upon it. It was all done automatically, as part of the operating procedure.

"Q In other words, if you saw a section chief's signature saying, 'We have looked at this thing and approved it,' you would automatically assume that they had followed the normal procedure and had made such an inspection?

"A Well, I would like to go back and preface one other thing, and that is that we have learned to know [430] our section chiefs, what we could expect of them. As I said before, we had a good group. Yes, they could be depended upon. If the signature was there, that generally was all that was necessary.

"Q But under the normal procedures, section inspections—

"A It would have been done automatically. I mean, they understood operating procedures as well as we did.

"Q Now, calling your attention to a portion of Page 1 of 6, where it indicates—I believe it says, 'Heater fuel supply line is 3/16 O.D. times .035, WT, S/S,' which I assume is stainless steel, 'from heater fitting to blower pump part of heater,' and there is some more dimensions, and then it says, '.035 stainless to fuel supply in belly of aircraft.'

"A Uh-huh.

"Q Now, in the course of an inspection would the FAA personnel have inspected that line as well as the other portions?

"MR. LYONS: Objection; that's speculative again.

"Q BY MR. MILLER: Well, let me rephrase it: You have indicated that an inspection of this type of installation would be mandatory?

"A I would say that was the normal procedure; [431] right.

"Q Now, in the course of such an inspection, would it also be required or mandatory that the person examine all aspects of the installation?

"A Apparently we are not communicating. Number one, those boys that we had when I was there were quite knowledgeable as far as regulations were concerned. They were very thorough in their investigations. They may not be always able to give me all of the details, but they could always go back to the file and get it in case I needed such details. All of them that we had there had years in the course of regulations and had been doing an excellent job. Sure, I realize that people make mistakes at times, but the procedure that we had, I mean, generally, we would bring those to the front before we got to the end of the line, but it didn't happen often.

"Q Well, this particular portion of the installation that we are talking about is a gasoline fuel line; that the routing of gasoline fuel line inside an airplane is a matter of some concern from a safety point of view, is it not?

"MR. LYONS: I object to that. It's thoroughly speculative. You are asking for his opinion with regard to engineering, with regard to pilots. It's such [432] a broad question, I don't believe he can answer it.

"Q BY MR. MILLER: Mr. McMillan, in the course of your 26 years with the FAA, I believe you indicated that you eventually became the head of this particular section?

"A Assistant Chief.

"Q And before that, you had responsibilities such as the signing off of the certificates, which involved essentially reviewing the activities of all of the section chiefs; is that correct?

"A Well, after I became Assistant Branch Chief, yes, I had that responsibility, along with the Branch Chief, of approving these things where we found that they met the safety requirements established by the pertinent civil air regulations.

"Q And what was your assignment before that?

"A I was Chief of the Manufacturing Inspections Section.

"Q Did that involve inspecting the routing of such things as fuel lines in aircraft?

"A Well, my boys kept track of the manufacturers of aircraft, engines, and whatever else was produced for use in civil aviation, and, yes, we did conform to these. We determined compliance with pertinent regulations and everything else.

[433] "Q Well, calling your attention to Regulation 23.859—

"A Now, was 23.859 in force at the time that this was signed?

"Q I believe it was. Are you aware of whether or not the fact—that regulation was in force?

"A I think you will find that 18 was.

"Q Well, that is a regulation that deals with combustion heater fire protection, and there is a requirement, is there not, in connection with the installation of the combustion heater, that each applicable requirement concerning fuel tanks, lines, and exhaust systems must be met?

"MR. LYONS: I object again. You are making reference now to Part 23, or Part 18, or are you talking about the present time?

"THE WITNESS: Well, he could have been talking about Part 03, also, which was standard airworthiness requirements for non-transport-category aircraft.

"MR. LYONS: I renew my objection, then.

"Q BY MR. MILLER: Well, was such a regulation applied to a combustion heater installed under supplemental type certificates—

"A You are asking for me to remember over eight years. I would be inclined to say yes, but I cannot [434] tell you positively that there was, because I don't remember.

"Q Well, I'll ask you for the moment, as a hypothetical, to assume that such a regulation concerning the routing of fuel lines for combustion heaters was, in fact, in effect.

Would the inspection that you have indicated be standard and, in fact, mandatory in installations such as the one—would that inspection as to this stainless steel line to the fuel supply have to be made in accordance with those regulations?

"MR. LYONS: Objection

"MR. MILLER: Would you read the question back, please?"

It was read back and reviewed.

"Q BY MR. MILLER: You have indicated in your previous testimony that according to your general procedures, if you were dealing with STC such as the one we are discussing here, that it would be required—in fact, mandatory—to do an inspection of the aircraft; is that correct?

"A Right; as a general thing, that is where you are using this kind of data.

"Q Right.

"A Okay.

[435] "Q Now, assuming that there were regulations concerning the installation of fuel lines to combustion heater similar to 23.859, perhaps one of the antecedents of that regulation, the one that was in effect at the time of the granting of this STC, would—the inspection that you have previously indicated as a mandatory requirement had to apply to those regulations to the fuel line indicated on this drawing as .035 WT, S/S to fuel supply in belly of aircraft?

"MR. LYONS: I'm going to object again.

"MR. MILLER: Well, let the witness answer the question. I'm satisfied at this point.

"MR. LYONS: If he can understand the question. It refers to superseding regulations to which he previously testified, and he hasn't been shown the regulations you are referring to. You have only paraphrased it for us.

"THE WITNESS: May I go ahead and answer?

"MR. LYONS: If you can.

"THE WITNESS: I can. Number one, we cannot pick and choose as to which regulations we are going to apply and which we are going to reject. Any regulation that applies to the activities taking place must be complied with.

"Q BY MR. MILLER: So that this inspection would [436] have to be in conformity with all regulations?

"A With all applicable regulations.

"Q All that would apply to this type of fuel line installation?

"A Right.

"Q Would you recall, at this time, who would be the appropriate section chief to have reviewed this type of an installation on this date?

"A Well, the answer is negative, for the very simple reason that I have been out of the agency over five years, and I am not familiar with all of the changes that have taken place.

"Q Well, can you think back to August, September and October of 1965? Do you recall the people who were in charge of those sections at that time?

"A Again, you are asking me to go back and pick out the sections that might have been involved on this particular activity. I thought I made it clear that there was five sections, plus an engineering service representative office. Now, I have no way of knowing which of the five sections were employed in this or participated in this activity. Neither am I aware now as to whether or not any of the engineering service representatives did. There was there of them that might have—there was there of them—"

[437] I believe it was supposed to be, "three of them," but it reads:

"—there was there of them that might have been active in this project, so really you are asking me a question that I can't answer, and this is the reason for it—

"Q Well, just to understand, I'm not asking you this question necessarily in terms of seeking necessarily an accurate answer, but more in seeking assistance in perhaps unearthing the names of people that may be able to give us more information. I won't hold it against you if you identify

somebody that wasn't actually there at the time. Sometimes records of these things things are hard to obtain and are unclear, and if you could give me the names of as many section chiefs as you remember—

"A I would hate to try to pull all of those out. I know three of them have retired, and I have heard that there have been some other changes. I'm not particularly sure what they are. I know that there has been some other people that could have been involved that died. As a matter of fact, I helped bury an old friend just before Thanksgiving that might have helped. I'm not in a position to make any kind of recommendation that you have asked for at this particular time, [438] because I frankly am not that familiar with it any more.

"Q You don't recall any—who any of the people were at this time?

"A We have got Glen Welch, the current engineering and manufacturing branch chief. Put it to him. He may be able to help you."

I stopped direct examination at this point, your Honor, and continued with cross-examination by Mr. Chambers, representing Aerodyne. (Reading:)

"Q Mr. McMillan, I'll replow some ground simply because I'm afraid at a later time, the form of the question—somebody may object to it, so I hope you will hear with me.

"A Certainly.

"Q And I will try to be brief.

"A I'm here to help what I can. I don't know how I can.

"Q You indicated that you worked back in 1965 regularly with the section chiefs that were under your supervision; is that correct?

"A In the absence of the branch chief, I did assume that responsibility.

"Q All right, sir.

"A I was his alternate, in other words.

"Q All right, sir, and you therefore knew these [439] people, and you knew that they were knowledgeable in their jobs; is that correct?

"A I was real proud of them.

"Q All right, sir, and would I be correct, sir, in assuming that a part of the function of these engineers that worked in the sections would be to be current and thoroughly familiar with the FAA regulations or CAA regulations, as the case may be?

"A Those FAA regulations were their Bible.

"Q All right, sir, and they were paid to be familiar with them?

"A They had better be.

"Q All right, sir, and would one of their primary functions be, in carrying out their duties, to see that those regulations were complied with in any modification of an aircraft?

"A This is what they were being paid for.

"Q All right, sir. Now, when a project or job came in, such as the installation of a gasoline heater in a Dove, which is the subject of this lawsuit, would someone be assigned to that task who was knowledgeable in the regulations that applied to the installation of a heater?

"A Well, needless to say, in any office you will find people that are stronger in one field than another. [440] When it came to regulations, I think they were all about equally knowledgeable as to what they were, and you were correct in stating that the engineer that was put in or assigned to evaluating that particular engineering data would do a very thorough job.

"Q And would he be fairly familiar with the current regulations applicable to such an installation of a heater as we are dealing with?

"A He was not only knowledgeable and conversant with the regulations current at that time, but because of his experience in administering some of the superseding ones which might be applicable to one of the older aircraft, he was also equally knowledgeable about those.

"Q Now, it would not be abnormal, would it, Mr. McMillan, to have an STC issued based on an actual physical inspection of the installation, as opposed to inhouse blueprint review? That was done, was it not?

"A If there is a very limited number of aircraft that were eligible for certification after modification in accordance

with one of these, the answer is yes, it could be done that way.

"Q All right. Now, we are then talking about the difference in an unrestricted STC and one which is limited to one or two, or maybe three, aircraft?

[441] "A Right; this is a restricted one right here.

"Q And in the instance of restricted STC's, this conformity inspection procedure you have outlined was not abnormal?

"A No.

"Q All right.

"A Because it was in complete compliance with the regulations applicable at that time.

"Q Would you consider a physical inspection of the installation, such as you related would have been done in this case, to be in any way inferior to an inhouse inspection of drawings or blueprints?

"MR. LYONS: Again, are you referring to what has been marked as Exhibit No. 1 in Mr. Hill's deposition, or are you referring to some other type of drawings?

"Q BY MR. CHAMBERS: Well, for Counsel's benefit, what I'm talking about is that, as I understand it, there were two ways to do it. If you have restricted situations, restricted STC situations, you often inspect on the ground to see that compliance with all applicable regulations has been obtained?

"A It's done by the same personnel in both cases.

"Q And in some instances you do it; you technically evaluate it in-house?

"A Well, again, it gets back on one or two [442]machines. You are going to have personnel that helped put this one together, and they generally will be used to put the second one together, but their activity, again, as I said before, is monitored by generally the same personnel, so really what you end up with is just as good a product as you would have if you had elaborate drawings, elaborate controls, and everything else.

"Q That was my question. There is nothing inferior about this procedure, as opposed to having three feet of drawings to look at and review in your office?

"A Well, there is only one thing: If you are doing more than just a few, we would require more data, for the very simple reason that we don't have the manpower to do what we do on the one or two shifts.

"Q Here again, my question is related to our situation where we only had two. There would be nothing inferior about that type of compliance, as to the other type that you would use in an unrestricted situation?

"A The procedures and standards used at that particular time would include the type of thing that you are talking about.

"Q And to insure that the regulations had been complied with?

"A Definitely; that's the primary responsibility.

"Q And as a part of this inspection, you would [443] have also inspected the fuel lines, would you not?

"MR. LYONS: I object to that again. Mr. McMillan or somebody under his direction, or somebody in this office?

"MR. CHAMBERS: Well, are you objecting to the use of the word, 'you'?

"MR. LYONS: Yes

"Q BY MR. CHAMBERS: As a part of this inspection procedure, the personnel performing such an inspection would have included the fuel line in their inspection, would they not?

"A They would do so, since anything that would jeopardize safety would come under scrutiny and evaluation.

"MR. CHAMBERS: All right, now I want to stop at this position right here and put this on the record: In my haste, MR. Miller, to be brief—"

MR. GERRY: Can't we skip that?

MR. MILLER: Well, he is going to modify his questions, which we agreed. Apparently, in Texas, you are supposed to start such question as, "State whether or not." We agreed that his questions could be considered as though they had been stated that way.

THE COURT: All right.

MR. MILLER (Reading):

[444] "Q BY MR. CHAMBERS: Here again, so that the record will be clear, it's your testimony that the type of in-

spection which would have been performed by your subordinates in these sections would have been to personally inspect the physical aircraft after the installation, and possibly during; is that correct?

"A I would say that the modifications would have been personally inspected, not the full aircraft.

"Q All right, sir, the modifications recited in the STC?

"A Right.

"Q All right, sir, and the person performing that inspection would satisfy himself that all applicable regulations had been complied with; correct?

"A That was his duty.

"Q And he would do so?

"A And he would do so, you darn right.

"Q And he would then report that, if he were not the section chief, and recommend issuance of the STC to his section chief; is that correct?

"A If he was in the sections, he would.

"Q If he wasn't one of the service—

"A If he was a service rep—

"Q He would report direct to you?

"A He would report direct to me.

[445] "Q All right, sir.

"A But he would have coordinated his report to me with the appropriate sections.

"Q All right, sir, and that section chief would then recommend to you the issuance of the STC?

"A If the section personnel were involved, he would.

"Q Okay."

THE COURT: Are we at a convenient point at this time? I assume—how much further?

MR. MILLER: You Honor, we have only a half-dozen pages.

THE COURT: All right. Why don't you conclude that?

MR. GERRY (Reading):

"A. Of course the engineering service reps, it would come directly into the branch office, because they were under the branch office, or they would coordinate their findings. It was not necessary, under those conditions, to pick anything up from me. That is concurrence from sections.

"Q Now, once this recommendation for issuance got to the branch, that, in effect, was saying, 'We find that it complies with all of the regulations'?

"A That's precisely what it implied.

"Q And that, 'We further, therefore, consider it [446] an airworthy modification'?

"A Yes, it would be an airworthy installation after either the inspection by the appropriate FAA personnel, or if it was installed in accordance with approved engineering data.

"Q And would you not affix your signature to what has been referred to, and marked, as Plaintiffs' Exhibit 1, without having the assurance from the appropriate subordinate that the regulations have been complied with, and that the modifications and installation was airworthy; is that correct?

"A Very definitely."

MR. MILLER: Examination continues with cross-examination by Mr. Lyons, on Page 35, Line 14 (Reading:)

"Q These approvals of the STC's, Mr. McMillan, were they done on behalf of the administrator of the FAA?

"A Yes, but this is an authorization that has been delegated to the regions and to the branch chiefs.

"Q By the administrator?

"A By the administrator.

"Q Did Aerodyne have an engineering service representative, to your knowledge, back in 1965?

"A I really am not that familiar with that organization. I couldn't tell you. As a matter of fact, Aerodyne—I have heard the name mentioned, but—

[447] "Q You just don't know?"

"A I just don't know.

"MR. LYONS: That's all I have."

MR. MILLER: Additional redirect by Mr. Miller started on Page 36, Line 7 (reading:)

"Q Were you acquainted with a Douglas L. Coppinger, C-o-p-p-i-n-g-e-r?

"A Never met him.

"Q Well, on this particular STC, he has previously testified that he was the man who was assigned to this.

"A This is the application?

"Q Uh-huh, this is the certificate.

"A Now, when the application comes in, the project is under the control of the FAA, and when the people in the FAA give me assurance that everything has been taken care of, I sign it.

"Q And you are not personally familiar with Mr. Coppinger?

"A No, never met him, to the best of my knowledge.

"Q Mr. McMillan, you have described in some detail the type of procedure that was required prior to approval of an STC.

"A Well, this is the standard procedure for any STC.

[448] "Q Plaintiffs' 1?

"A Yeah.

"Q Now, am I correct that your testimony indicated that it consisted of an examination of the documentation submitted, followed by an inspection of the aircraft?

"A We had to have some record as to what the changes were, yes, but for all practical purposes, the actual evaluation and inspection, compliance inspection, by the appropriate personnel, FAA personnel, would result in showing complete compliance with the regulations, or it would be disapproved, one or the other. There is no half-way measure.

"Q And this inspection is to determine compliance with the regulations?

"A With the regulations. This is a standard. Everything is measured.

"Q And would the inspection also determine the airworthiness of the installation?

"A If the inspection showed that it complied with all pertinent regulations, it would be airworthy. Now, if there was any question left, whatsoever, we might ask for further investigation, or some test for this one particular project, to assure ourselves that the regulations were fully complied with before giving [449] approval.

"Q Then the inspection of the actual installation was an integral part of the approval procedure?

"A Definitely.

"Q Could this approval procedure work properly without an adequate inspection?

"MR. LYONS: Objection. May I state the basis?

"MR. MILLER: If you care to.

"MR. LYONS: If you want it, I will be glad to.

"MR. CHAMBERS: You are talking about all instances of all STC's?

"(Thereupon the last question was read by the reporter.)

"MR. MILLER: All right, let me modify that:

"Q Could that approval procedure that you have outlined, that you have stated would have applied to an STC application such as was shown in Plaintiffs' 1, could that procedure have worked properly without adequate inspection?

"A Well, I don't quite understand what you are getting at. Just let me say this—

"Q Well, don't answer it if you don't understand. Let's have the girl read it again.

"A I remember what you said.

"MR. MILLER: Would you please read the question [450] again?

"MR. CHAMBERS: He didn't say he didn't hear it; he said he didn't understand it.

"MR. MILLER: I know, but I think he may understand it if it's read again, because I was trying to get my language correct.

"(Thereupon the last question was read by the reporter.)

"THE WITNESS: I'm not sure that I understand what you asked for, but let me say this, that we must, before we make any approval of any modification, we must determine its compliance with the appropriate Civil Air regulations. We do, or did a rather comprehensive review of an installation and the applicable regulations, whether or not these regulations were satisfied. Now, if we hadn't looked at the installation with this data, you would never have gotten your approval.

"MR. LYONS: By, 'this data,' are you referring to Exhibit No. 1?

"THE WITNESS: No. 1.

"Q BY MR. MILLER: Then am I correct in gleaning from what you have said, that an inspection would have had to be done in order to properly approve this particular STC?

"A Right.

[451] "Q Is that correct?

"A This is the way it would have to be done. In other words, you have got to know whether or not the installations met the applicable regulations, fully comply with it, and I don't know how you could make that determination without an inspection.

"Q It's a documentation as shown in the Hill Exhibit No. 1, which is referenced on the STC application, Plaintiffs' 1 here. It's not adequate in and of itself for an approval?

"A Right."

MR. MILLER: That is the end of Mr. McMillan's deposition, your Honor.

THE COURT: All right. Thank you, gentlemen.

This might be a convenient point, then, to take our evening recess. Is 9:30 a convenient time for all parties tomorrow morning?

MR. MILLER: Yes, your Honor.

THE COURT: We will be at recess until that time tomorrow morning.

(Whereupon an adjournment was taken until 9:30 o'clock A.M. of the following day, Friday, January 31, 1975.)

TESTIMONY OF DAVID H. HOLLADAY  
FEBRUARY 5, 1975

[883] interpretation, he certainly should have been able to recognize what the importance of that paragraph is and what it requires him to do.

Q (BY MR. GERRY): Is that one of the things referred to by Mr. McMillan as the "Bible of the FAA inspector"?

A Yes.

MR. COOK: Objection.

THE COURT: The objection is overruled.

Q Did those photos show the entire installation?

A No.

Q 23.609 requires protection of structure: each part of the structure must, A, be suitably protected against deterioration or loss of strength in service due to any cause, including, one, weathering, two, corrosion, and three, abrasion; and, B, have adequate provisions for ventilation and drainage.

Were any of those violated in this installation?

A Yes.

Q Which, and in what manner?

A I believe the two which refer to corrosion and abrasion were violated.

Q In what manner, sir?

A The juxtaposition of dissimilar metals, copper and steel, and the failure to provide adequate attachment [884] of the lines for sufficient rigidity and protection against vibration as well as rubbing or abrasion against other surfaces.

Q Were those readily available to anyone; that is the outward manifestation of that readily available to anybody who made even the most cursory inspection of the fuel line and its routing for this heater?

A Yes.

Q Was such an inspection for those items required under the STC Manual and the parts which you have given to us and especially Part .5106 of page 35 thereof?

A Yes, it makes specific reference to it in the form of very detailed instructions as to what he is to do and what

he is to look for in the course of performing his conformity inspection.

Q Under 23.611, which states: There must be means to allow close examination of each part requiring recurring inspection adjustments for proper alignment and function, or lubrication, was such provided in this installation?

A No, it was not, and that alone, without any other examination, would have been sufficient, in my judgment, to have completely rejected this particular installation and have refused the issuance of the STC.

Q And is that part of the reason that only a short time thereafter Butler had to put in an access door, for

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[899] A. In respect to the mounting of the tanks in this aircraft, they met the required standards; however, when you consider, under combustion heaters, that it points out that all of the standards that are applicable to tanks and to lines must be met, then it was violated in the sense that that particular part pertaining to tanks and its relationship to lines apparently was not included in the examination of this aircraft or the consideration of this fuel system in its application in this particular supplemental type certificate.

Q Would that be apparent to anyone making the cursory inspection for examination of the installation?

A Yes.

Q 23.993, fuel system lines and fittings: A, each fuel line must be installed and supported to prevent excessive vibration and to withstand loads due to fuel pressure and accelerated flight conditions; and B, each fuel line connected to components of the airplane between which relative motion could exist must have provisions for flexibility.

Was that section violated in this installation?

A Yes.

Q And in what regard was that section violated?

A It was violated in regards to both of those subparagraphs of that section. First, the fuel lines and [end of page 899.]

[908] MR. COOK: Your Honor, I move to strike that answer as contrary to the evidence in the motion picture

which showed the stainless steel line from the belly fitting up to the upper corner to have been 33 inches as contrasted.

THE COURT: The objection is overruled. You may inquire on cross-examination.

Q (BY MR. GERRY): Now, was that readily apparent to anyone who made the most cursory examination of that line in its run from the cockpit floor or baggage compartment ceiling down to the belly of the aircraft an back to the first retention block?

A Yes.

Q And under that custom and practice, how many clamps would be required on that run of line?

A Starting at the point at which the line reaches the sloping bulkhead, forward side bends were made in that line at that point, and fittings were installed at that point. For each of the fittings installed, a clamp should have been placed adjacent to the fitting over the line, because of the weight of the fitting and the necessity to support that.

From the fitting where the clamp is installed, a clamp should have been installed each 12 inches of the line, as a minimum, or at additional locations necessary to properly retain the line. So, taking 36 inches of line and assuming [909] clamps installed at the fittings, at least two clamps would have been required to be installed between those.

Q That would be on the forward side of the sloping bulkhead if the line was run that way?

A Yes.

Q Would it be readily apparent to anyone giving the most cursory examination or inspection of this aircraft if those two clamps were missing?

A Yes.

Q Would it be readily apparent to anyone giving the most cursory examination or inspection of this aircraft that the two clamps, which should have been there on each side of the turn at the belly, right at the sloping bulkhead, were missing?

A Yes.

Q Did these lines run between areas where there was relative motion?

A Yes.

Q What are those?

A There would have been some relative motion between the floor of the cockpit and the sloping bulkhead—relative motion at least by the weight of the persons seated in that area. There would have been relative motion also between the line on the sloping bulkhead and the line in the belly of the aircraft.

[912] cursory examination or inspection of that aircraft?

A Yes, and particularly if that examination had been performed in accordance with the Federal Aviation Agency type certification manuals document 8110.1, supplemental type certificate procedure.

Q 23.1191, fire walls: A, each engine, auxilliary power unit, fuel-burning heater, and other combustion equipment intended for operation in flight, must be isolated from the rest of the airplane by fire walls, shrouds, or equivalent means; B, each fire wall or shroud must be constructed so that no hazardous quantity of liquid, gas, or flame can pass from the engine compartment to other parts of the airplane; C, each opening in the fire wall or shroud must be sealed with close-fitting, fireproof grommets, bushings, or fire wall fittings; E, each fire wall and shroud must be fireproof and protected against corrosion; G, fire wall materials and fittings must resist flame penetration for at least fifteen minutes.

Was that section violated?

A Yes.

Q In what regards was that section violated?

A In all regards and in all respects. First, the combustion heater was grounded in the baggage compartment in the left-hand side of the nose wheel well. All of that structure in that area is typical aircraft aluminum structure.

[913] When the heater was installed, this particular paragraph was apparently disregarded. There was no fire wall. The wall which was installed was made of aluminum and thin sheet aluminum. In addition, assuming the capability of the aluminum fire wall, which is roughly good for fifteen to twenty seconds in the event a fire should occur—

Q Rather than the fifteen minutes required?

A Yes.

Assuming the capabilities of that aluminum material to withstand temperatures to fifteen or twenty seconds, which is based upon Civil Aeronautics Administration tests conducted in 1943, it could not have performed even that function because it was not adequately installed. It was put in with metal PK screws to hold it in position.

The nature of this design and installation required that it be cut in two parts. No sealing was required for the installation of those two parts. Rubber grommets were used for openings.

Q Are the rubber grommets fireproof as required by the fire wall?

A No, they are not. There are fireproof grommets, but a rubber grommet is not a fireproof grommet.

Other holes in the fire wall were not sealed by grommets or by any other means. There was no sealing provided around the external perimeter of this thin sheet aluminum, [914] and there was no attention given to the control of any fire which might develop in that area around the inside surfaces of the aircraft structure.

If I may, I would like to refer to that STC package at this point which shows a photograph of it because you can clearly see that there is an open gap in the fire wall which is readily apparent to anyone who would have inspected it and approved it on the basis of the so-called drawings that were submitted, which are photographs of the installation.

MR. GERRY: Might I approach the witness, your Honor?

THE COURT: Yes, sir.

Q (BY MR. GERRY): I will show you Plaintiffs' 30C.

MR. COOK: Your Honor, perhaps he should refer to what it is described as in the document. I believe that the center fire wall does not appear.

MR. GERRY: All right.

Q (BY MR. GERRY): Could you demonstrate to his Honor what you mean—the area that shows the open gap?

A Yes. What I am referring to is Aerodyne Engineering Corporation Drawing D205141, dated 7-28-65, sheet 2 of

6, which has a photograph which is identified by a caption, "Heater installation, 35,000 BTU." It shows the aft portion of the heater, plenum chambers or ducting, and it shows the two sections of the fire wall which I referred to, and it is quite obvious in the photograph that there is a fairly large [915] opening at the bottom of the plenum chamber where the two sections of the so-called fire wall come together, and that there are other openings, cutouts in these two pieces of metal, that they are not sealed or secured, and that there are no sealings in this so-called fire wall at the point through which various of the lines pass.

It is my understanding that those were the documents which were submitted through the Federal Aviation Agency as the basis for approval of the STC.

Q Would it be apparent to anyone making the most cursory examination of this installation that that would not meet the requirements of 23.1191?

A Yes, and further to that, even if the photograph had not been submitted, the writing on the sheet to which the photograph is attached calls out as specifications, the installation of—I think it's 2024ST alclad, which is aluminum.

Q So, inspectors knowledgeable—knowledgeable inspectors in this field are required, are they not, to have knowledge of the fire-resistant capabilities of this kind of material?

A Yes. As it was covered yesterday in the Federal Aviation Agency supplemental type certificate manual, it even refers not only to the requirement for stainless steel, but it points out that attention must be given to the thickness [916] of the fire wall material to prevent its warpage because, if that material is too thin, and it is then subjected to the in-flight fire temperatures, warpage will occur which will destroy the integrity of the fire wall, even though it is stainless steel sheet.

Q There has been a suggestion here, Mr. Holladay, that the heater itself contains its own integral, quote "fire wall," end of quote, in that the fire chamber has around the outside of it a stainless steel—another wall of stainless steel. Is that a fire wall which would comply with the requirements of 23.1191?

A No, it is not. The contention that the combustion chamber is surrounded by two layers of stainless steel—that is true. That is correct. But the purpose of the fire wall as called out in the regulations, is to protect against such things as the burn-through or rupture of the combustion chamber during the normal course of its use and operation and between inspection periods, and in addition, to protect against the fire which may occur or originate externally to the combustion chamber and stainless steel walls in which it is contained.

Q Subpart F of 14 CFR, equipment general, found in 23.1301, that would be subpart "F" of 23, function and installation: Each item of equipment essential for safe operation, including radio communication and navigation [917] equipment, must, one, adequately perform its intended function; two, in the case of equipment other than radio communications and navigation equipment, function properly when installed; four, where appropriate, be adequately labeled as to its identification, function, and operating limitations. B, whenever necessary, additional equipment that is installed as prescribed in the operating rules of this chapter, must meet the requirements of this section.

Was that section violated?

A Yes.

Q In what way?

A In numerous ways. In the first place, there was an apparent failure in respect to an overall evaluation of the fuel system and the fuel supply to the heater. There was no attention given to an adequate description of the function of the fuel system as it related to the heater. Nothing was provided insofar as information was concerned as to the source of the fuel supply for the heater. Nothing was provided as to information concerning the control of the flow of fuel through the fuel line to the heater. No information was supplied as to the fact that that line would either be subject to free flow based on fuel tank pressure air or to pressurized fuel based upon operation of the electric boost pump in the tank.

Failing the provision of that information, no [end of page 917].

TESTIMONY OF DAVID H. HOLLADAY  
MARCH 13, 1975

[1430] correction, the 2nd of January, '67, which would have been a year and a few days, a few weeks later. Will you assume for me it had two annual inspections?

A Yes, sir.

Q And that, as well, it underwent hundred hour inspections in September, 1965, November 1965, February of '68—I have skimmed over three years, two years, when it was operating with Air Wisconsin, and April 1968, June 1968, August 1968, and I think I skipped one in February 1968, essentially ten one hundred hour inspections, not counting about three years, or two years, while it operated for Air Wisconsin. Now, sir, what is your opinion, or do you have an opinion as to whether this fuel line, as it comes up from the belly, behind the sloping bulkhead, and up all the way, up to the upper right hand corner, in photograph, exhibit no. 41B, and up and beyond the upper right hand corner of 41B, do you have an opinion as to whether that line should have been inspected in its entirety from the belly of the aircraft up to the upper right hand corner, during each of those respective enumerated inspections?

A Yes, I have an opinion.

Q What is your opinion?

A It should.

Q It should have been inspected?

A Yes.

[1431] Q And should have been inspected for airworthy condition?

A Yes.

Q Then it was secure?

A That raises some questions in my mind.

Q The line was secure?

A No, I said it raises some questions in my mind, based upon what you said, if it was secure, did I misunderstand your question?

Q I will withdraw the question, Mr. Holladay, and try to rephrase it, make it easier for you to answer. Is it your opinion that such an inspection, each one of those inspections, that I have enumerated, should have included an inspection to see whether the line was secure?

A Yes, except that still raises some questions in my mind, as to the division of responsibility.

Q Is it your opinion, sir, that such an inspection should also inspect to determine whether the fittings are secure?

A Yes.

Q And not leaking?

A Yes.

Q And tight?

A Yes.

Q And should that inspection also include an inspection [1432] to see that there is no chaffing or grating on the line?

A Yes.

Q Or a leak in any location, of any type?

A Yes.

Q Would such an inspection include operation of the heater, sir, or should such an inspection include operation of the heater?

A You have asked me one there that I am not sure about, I don't know whether that is included on hundred hour inspections or not. Certainly, the examination of the heater from a visual viewpoint a view is included.

Q And security of the whole thing?

A Yes.

Q Now, would it be your opinion, sir, that such an inspection would include operation of the engines?

A Certainly.

Q And would that include operation of the fuel boost pumps?

A Yes.

Q Would it be your opinion that this would occur while those inspection panels are removed, revealing the fuel line there?

A No, not necessarily. Now, the operation of the engines takes place at two points, if it is done correctly.

Q Not necessarily is your answer. Is it essential [end of page 1432].

[2460] SAN DIEGO, CALIFORNIA, WEDNESDAY,  
APRIL 2, 1975, AT 1:30 PM

THE COURT: Good afternoon, ladies and gentlemen.

THE CLERK: Your Honor, number two on the calendar is Case No. 70-138, No. 71-36, No. 71-37, No. 71-38, and No. 71-39, for further Court trial proceedings.

THE COURT: The Court would find counsel present with the exception of Mr. Cook.

Well, ladies and gentlemen, I have given the matter much thought since our last session. I have some comments to make which I hope will be helpful to counsel. As I indicated at the close of the last session, I would compliment counsel on the manner in which this case was presented. I think all the facts that were available to counsel were presented to me, and I think counsel have discharged their obligations to their respective clients in a highly professional manner.

Of course, now it would be incumbent upon me to discharge my obligation as trier of the facts. I consider this to be an extremely close case. The case turns on what I consider to be a critical issue, and I think the evidence on that point, which I will allude to later, is very close.

The parties know this accident occurred in October of 1968 when this De Havilland Dove crashed as the result of an in-flight fire. Four persons were killed.

[2461] That De Havilland Dove was put into service, as I recall the facts, in 1953. That aircraft had a heater installed in the summer of 1965, which was a little over three years before the date of the accident in this case.

It is the plaintiffs' position that the heater installation, the subject of a Supplemental Type Certificate, was accepted by the FAA as an airworthy installation when in fact it was not. The issue before me, then, is: Was the FAA negligent in its approval or inspection? Was this installation in fact airworthy; and if not, was it the proximate cause of the fire?

The legal authority exists for such liability if the plaintiff proves his case, and the most recent pronouncement that I am aware of is *Arney v. United States*, 479 F.2d 653. That

case happened to be a panel in which I participated in the decision rendered. At page 658, that Court stated:

"The Civil Aeronautics Act, the predecessor of the Federal Aviation Act of 1958, was enacted, and regulations promulgated thereunder, to promote civil aviation while assuring maximum safety in the air," citing cases. "The purpose of the certification of aircraft under the 1958 Act and regulations was to reduce accidents, and the Government may be liable for negligence in improper issuance of a type airworthiness certificate," again citing cases.

[2462] So I have attempted to analyze, gentlemen, in the light of that mandate, the facts in this case. We are, of course, attempting to reconstruct an accident. We are utilizing the testimony of an eyewitness, Mr. Telles; various experts who testified as to fire, airworthiness, fuel and air tests; and the appropriate FAA regulations.

We have heard testimony from men who installed and designed the heater installation, from officials from FAA who approved the installation. We have examined the physical evidence at the scene. We have had testimony from the men who have examined and worked on this heater line. We have the physical evidence itself of the sister ship, 41B. I would find that installation to be substantially identical to the installation in 40B, the subject of this case.

Pursuant to my responsibility, I have examined the physical evidence, the exhibits. I have reviewed the testimony of the various witnesses, and I have attempted to analyze the evidence in the light of the specific issue presented here. I have reached certain conclusions, and I would be prepared to find certain facts as proven to my satisfaction. I am articulating them to the end that the parties might know the basis for my decision, and if it be erroneous, that upon review, it may be corrected.

Using the framework Mr. Gerry suggested in his argument, which Mr. Cook adopted, I would find and conclude in the [2463] following manner: First of all, as to the cause of the fire, or the source of the combustion, I would concur, as I think all the parties litigant concur, that gasoline was the combustible here involved. The spread of the fire, its

intensity, the expert evaluation of Mr. Jasich, I think, makes that an academic question.

Secondly, where the fire started. I would find that the fire started in the vicinity of the baggage compartment, adjacent to the sloping bulkhead. I have considered the situs of the fire or the start that might have resulted from a spill in the gas tank top, from a break in the flex hose leading from the engine, and from a fuel tank leak. I find that those sites are not supported by evidence that has been presented to me. I think the physical evidence suggests that the area of the sloping bulkhead in the vicinity of the baggage compartment is the site.

Mr. Jasich's testimony, to me, is persuasive also. He is the only so-called fire expert presented, and I find his testimony to be persuasive in the conclusion he reached and the factors upon which he predicated that conclusion.

The condition of the remains of the plane are consistent with this being the site of the fire or the origin of the fire and, to me, appear to be inconsistent with any other known source; for example, I think, if the fire had its genesis in the wing root or in the flex line, that the flaps [2464] would have been burned or consumed. They would not have been scorched as the physical evidence in this case would indicate.

The next area, the source of that gasoline, I would find to be the primer or the heater line. That was the only gasoline line forward of the junction block in the midsection of the plane.

The next area would be the source of ignition, and, as several witnesses testified, I think that is unknown. I think many sources of ignition did exist, and I think the prime candidate for that would be the electrical cables in the right side of the baggage compartment. Certainly, static electricity and the other factors enumerated by Mr. Jasich could provide that source of ignition; but one thing I am completely satisfied with is that the heater line supplied the gasoline which was the source of the fire, which caused the crash. I think that is well established by the evidence.

Not in any way to belittle any witness, but so that the parties may know my evaluation here, I discount the testi-

mony of Mr. Young on the origin of the fire; and given the physical evidence in this case, I would find his conclusions to be unpersuasive.

I would hold the failure of the heater line to be the critical factor in the fire and, thus, the crash. It is my conclusion that if this primer line were not in this plane, [2465] that there would have been no fire.

Next, moving on to the heater installation, the circumstances of the installation, to my mind, were not indicative of quality design and/or workmanship. It is significant to me that there was a lack of any real expertise in the design of this particular installation and the qualification of the men who prepared for this installation. By that, I have in mind the testimony which was given of Mr. Hill, particularly, and I believe Mr. Coppinger.

Secondly, I am concerned to some extent with the use of photographs after the work was done, rather than drawings; but I accept the testimony of other witnesses that this was not particularly an abnormal occurrence. I am concerned about the use of varying materials; for example, the copper, and I would find this line to be copper. Absent any evidence to the contrary, given the testimony of Mr. Holladay, since that's the only testimony before me aside from my own observations, I would find it to be copper.

The use of copper and stainless steel together in this installation and the manner in which this whole configuration was designed: I am concerned about the lack of flex material where movement would be anticipated. I am concerned of the lack of rigid support for the heater installation line. By that, I mean the use of a grommet for a supporting device; and particularly the lack of clamping at reasonable intervals. [2466] I am concerned about the closeness of the stainless steel line to the bulkhead described in—I believe it is 41B, plaintiffs exhibit. I am concerned also with the amount of movement permitted, as shown by the film introduced by the plaintiff, when manually manipulated by Mr. Holladay. It would seem to me that the amount of movement permitted would be impermissible and is unsafe, given a small plane, given turbulence, given unusual circumstances in landing such a craft. I would just think that this

would be, based on the testimony of Mr. Holladay, particularly an impermissible amount of movement of that line.

Lastly, I am concerned with the bending of that line, also, and the manner in which it was done. I would hold that all the defendant's experts would agree, it seemed to me, that if that line could rub on that bulkhead or come in contact with it, that, in their judgement, that line would not be airworthy; and I certainly think that line could come in contact with the bulkhead. Whether we bring into play Rule 23.933, whether we talk in terms of usage and customs of the industry, it seems to be almost academic. We have the plaintiffs' expert saying that line is unairworthy. We have the defendant's experts saying, if they made such an examination, in their judgement—they testified here that it was an airworthy installation, but that if it could reach that bulkhead, in their universal opinion, each one as he testified, [2467] said that, "In my opinion, it would not be airworthy."

I would find, based on the film and then the examination of that line, that it certainly could reach that bulkhead and come into contact with it. So, what in effect I am saying, relative to that installation was: I would find that there would be too much play in that line, too much occasion for vibration in the normal operation of the aircraft.

Now we find ourselves in the situation of whether the FAA either did not examine that line, which I think would be negligence, before they approved it, or if they did and passed it in this condition, that they would be derelict in their responsibility.

Given my observations of the line, and considering the testimony here, I am not so much concerned with the placement of a placard or what is on the placard, or even so much the precise location of the shutoff valve or the mechanics of compliance with the heater shroud requirements. All of those factors may indicate a lack of attention that deals with the inspection that was either had or was not had, but I think, critical to the regulation of this case is the mounting and routing of the fuel line and the problems that would be created by the vibration of that line.

I would accept, for the reasons stated by Mr. Holladay, that that line, as installed, was unairworthy. I do not feel it is a question of whether or not five clamps would be [2468] better than one when one would be adequate. I am aware that the FAA's duties concern minimum standards; but this line from 41B, the only thing we really have to go by—I would, of course, find it sufficiently similar to be probative—in this condition was not airworthy, and I think, if each individual defendant's expert witness had had the responsibility of the initial inspection, I am led to conclude that he would have found it so at the time of that examination. I think more clamps would have been required and some change in the use of the metals or the configuration of the routing would have been had.

So I would find that this line, based on the testimony before me, was not airworthy.

A word about the tests that were conducted: The fuel test, I think, with the varying results achieved by Mr. Holladay and Mr. Gibson, and the formula which was ultimately used by Mr. Gibson, I do not think is of too great a moment. When I correlate, in any event, the tests that were actually run, the mathematical formula which could or should be utilized, when I correlate that with the testimony of Mr. Jasich, I am satisfied there was sufficient fuel to fuel the fire.

If the flexible line, rather than the heater line had ruptured, I think you would have an inordinate amount of fuel, and I would certainly, as I indicated before, expect to see those flaps burned—burned, not scorched—burned and [2469] consumed. So think there was sufficient fuel in the time frame in which we are speaking. There was sufficient fuel to be consistent with the damage which was observed and which was caused.

As to the airframe test, I think that the device used had to be, or at least my reaction to it was that it was quite selective. The fact that it did not show any indication of the ram air in the baggage compartment is a significant factor to me when we know ram air was present. I do not think we are dealing here with a completely airtight compartment. We know that it is not watertight based on the testi-

mony of Mr. Schossow, and we know that it is not airtight. There were outlets under the cockpit door, and I am satisfied, based again on the testimony of Mr. Jasich, that fire would create its own draft. What I am saying about the air test is this: that I do not find it to be that probative, that there was very minimal air movement in the baggage compartment. I would find the air test, given in this case, to be of limited value in assisting the Court in the movement of the fire.

That leads me to the next point which deals, really, with the issue of proximate cause. If the FAA had approved this plane and certified it as airworthy, and it had no running lights, the plane would be unairworthy; but those facts would have nothing to do with the accident. They would have nothing to do with proximate cause.

[2470] So the next issue confronting the Court, as the trier of facts, is: Did this unairworthy line, three years later, proximately cause this fire?

As to the three-year time frame, I would expect, if the vice here is metal fatigue and vibration stress, you would not expect to see the results of that vice within thirty days or six months. It is the kind of trouble that would be gradual. As I recall the testimony, there were some fifteen hundred hours in the air for a period of time when this plane was being operated as a carrier. I would feel that three years would be consistent with the plaintiffs' theory of liability. Certainly, if there was a structural flaw in the metal used or a structural flaw in any of the couplings, that would have manifested itself long before three years.

I find myself in this position: that I am satisfied the failure of this line caused the fire and that this line was unairworthy, primarily because of the lack of support and the use of an unannealed copper with the stainless steel line, which would permit, in my judgment, excessive vibration and fatigue, metal fatigue. Yet, I would find specifically that the line did not fail where the plaintiff would assert that it did—in the vicinity of the bulkhead. My reasons for that conclusion are these: I find no marks on the stainless steel line from 41B on the line itself where I feel, based on this evidence, it would come in contact with the bulkhead.

[2471] Secondly, I find it of some significance that Spider, rather than repronouncing names, Spider detected no chafing on that line during the course of his inspections. Thirdly, I find it significant that Mr. Holladay made notes that were "chafing marks," but yet, among all the photographs, this was a photograph that was not taken to reflect those chafing marks. Lastly, what I will call the "cut" marks that are so dramatic and graphic on the line now, I feel satisfied, came from the unrelated accident which occurred to 41B at a time far removed from the incident int his case.

I base that on the fact that there are some of those—again, what I will call cut marks—three quarters of an inch apart, that they appeared to be severe, sharp, dramatic injuries to the line; that they occur on several sides of the line; that, from the photographs introduced, there was an accident which caused the injury to adjacent parts of the aircraft, which are consistent with the cuts observed on the stainles steel line; and, certainly, I cannot conceive reasonably that the area described by Mr. Holladay as chafing marks are the areas we now see as cut marks. In other words, I do not think he would not describe what we now see on that line as being some evidence of chafing. I do not think he could be talking about the same marks.

Now, if I had to engage in reasoned speculation, and I use that term advisedly, I would reason that the high probability [2472] of failure in that line would occur at the wedding of the copper and stainless steel line, at the coupling junction fitting, that that was the source of the leak and the situs of the fire. I think the burn patterns purport and tend to confirm that. I think the vibrations would have a decided effect on that junction of those lines and those fittings specifically involved at that location.

Now, gentlemen, I think this has been a difficult case for everyone. It's been an extremely difficult one for me. I know counsel have labored for many months and years in connection with this litigation. I am satisfied no one can every reasonably know for a certainty, given the remains of this plane, what precisely happened and the sequence in which it did occur. I am also satisfied these are all the facts we will probably ever have.

That brings me to what I call the extremely close critical question that I referred to in the beginning of my remarks: If the Plaintiff, by his proof, must show me where on this line it failed, he has not, and I think, cannot, and I would reject the most logical place he shows me—the bulk-head—as being the place where it did fail. But, if, as I view it, he must show me that this heater line installation was unairworthy because of the choice of materials, because of the routing, because of its lack of support that would render it subject to unreasonable fatigue and vibration, and if he must [2473] also show me that this unairworthy heater line failed and was the source of the fuel for the fire, and further that the failure of the line was probably occasioned by the defects in its installation which I found made it unairworthy as different, say, from a defect in the heater shroud or warning placard, then I think he has proven his case and liability would attach.

Gentlemen, that is what I would find in this case. I consider this by way of an analogy to a city inspector who approves gas line in a dwelling. If the couplings were fitted throughout that line in an unworkmanlike manner, and the city inspector should have never passed the line, when the house is destroyed, when the gasoline erupts, I do not think the homeowner has to prove which coupling gave way, but if the defect which made it unacceptable for approval in the first place has the high probability for the failure, then I think he has made out a cause of action.

So I would find that it is more likely than not, it is more probable, in my opinion—more than fifty percent, if I have to go to percentages—that the vibrations were the cause, based on this evidence, rather than, say, a structural flaw; and I would find that to be an essential ingredient in the proximate causation.

So, gentlemen, my finding would be that the line was unairworthy, that it was unairworthy because of excessive [2474] vibrations which would be occasioned by the lack of support and aggravated by the use of dissimilar metals, including the particular problems pertaining to copper; that this is the line that failed, and it failed because of the de-

fектs that made it unairworthy; and that this failure was the proximate cause of the accident.

Now, gentlemen, that is my very best judgement. I consider it a close case. I have discussed it at length because I have given you my reasons. I want to make sure that it is grossly apparent on this record how I decided this case and the reasons I found to be significant. These remarks of mine, I think, should constitute a portion of the findings of fact and conclusions of law. I would ask Mr. Gerry and Mr. Miller to prepare specific findings and conclusions on this issue of liability. Submit them to the Goverment for approval as to form.

Now, gentlemen, I think that speaks to all present issues before me. Is that your understanding, Mr. Gerry? Mr. Miller?

MR. GERRY: Yes, your Honor, except that I would like to hear your Honor say the words "I find for the plaintiffs."

THE COURT: I would find liability, and so I would find for the plaintiffs on that issue.

MR. GERRY: Thank you.

THE COURT: Is there anything further unresolved at this time, Mr. Quinton?

In the Supreme Court of the United States

No. 82-1349

UNITED STATES, PETITIONER,

v.

S. A. EMPRESA DE VIACAO AEREA RIO GRANDENSE  
(VARIG AIRLINES);

AND

UNITED STATES, PETITIONER,

v.

EMMA ROSA MASCHER

ORDER ALLOWING CERTIORARI. Filed May 16, 1983.

The petition herein for a writ of certiorari to the United States Court of Appeals for the Ninth Circuit is granted. The case is consolidated with case No. 82-1350, *United States v. United Scottish Insurance Co., et al.*, and a total of one hour is allotted for oral argument.

In the Supreme Court of the United States

No. 82-1350

UNITED STATES, PETITIONER

v.

UNITED SCOTTISH INSURANCE CO., ET AL.

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